

## Chapter 28: Section 4(f) Evaluation

<b>28.1</b>	<b>Regulatory Setting .....</b>	<b>28-2</b>
28.1.1	Identifying Section 4(f) Resources.....	28-4
28.1.2	Uses of Section 4(f) Resources .....	28-5
28.1.3	<i>De Minimis</i> Impacts .....	28-6
28.1.4	Avoidance Alternatives and Minimization of Harm .....	28-6
<b>28.2</b>	<b>Proposed Action.....</b>	<b>28-7</b>
28.2.1	Summary of Purpose and Need .....	28-7
28.2.2	Salt Lake County Alternatives .....	28-8
28.2.3	Utah County Alternatives.....	28-10
28.2.4	Tolling Option.....	28-12
28.2.5	Construction Phasing .....	28-12
<b>28.3</b>	<b>Identification of Section 4(f) Resources .....</b>	<b>28-13</b>
28.3.1	Section 4(f) Resources in Salt Lake County.....	28-13
28.3.2	Section 4(f) Resources in Utah County .....	28-23
<b>28.4</b>	<b>Use of Section 4(f) Resources.....</b>	<b>28-30</b>
28.4.1	Use of Section 4(f) Resources by the Salt Lake County Alternatives .....	28-31
28.4.2	Use of Section 4(f) Resources by the Utah County Alternatives .....	28-49
<b>28.5</b>	<b>Avoidance and Least-Harm Analyses.....</b>	<b>28-59</b>
28.5.1	Methodology for Avoidance and Least-Harm Analyses .....	28-60
28.5.2	Salt Lake County – No-Action and Location/Mode Alternatives .....	28-64
28.5.3	5800 West Freeway Alternative – Potential Alignment Shifts.....	28-73
28.5.4	7200 West Freeway Alternative – Potential Alignment Shifts.....	28-86
28.5.5	Conclusion .....	28-96
28.5.6	Comparison of the 5800 West Freeway Alternative and the 7200 West Freeway Alternative .....	28-97
<b>28.6</b>	<b>Measures To Minimize Harm.....</b>	<b>28-112</b>
28.6.1	Measures To Minimize Harm to Historic Resources .....	28-112
28.6.2	Measures To Minimize Harm to Parks and Recreation Areas .....	28-113
<b>28.7</b>	<b>Coordination .....</b>	<b>28-115</b>
28.7.1	Coordination Efforts for Historic Resources .....	28-115
28.7.2	Coordination Efforts for Parks and Recreation Areas .....	28-116
<b>28.8</b>	<b>Final Section 4(f) Statement.....</b>	<b>28-117</b>
28.8.1	5800 West Freeway Alternative (Salt Lake County Preferred Roadway Alternative) .....	28-117
28.8.2	2100 North Freeway Alternative (Utah County Preferred Roadway Alternative) .....	28-118
<b>28.9</b>	<b>References .....</b>	<b>28-119</b>

This chapter addresses the requirements of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966. Section 4(f) applies to publicly owned parks, recreation areas, and wildlife and waterfowl refuges and publicly or privately owned significant historic properties.

This chapter identifies Section 4(f) resources in the Section 4(f) impact analysis area, determines impacts to those resources, evaluates potential avoidance alternatives and measures to minimize harm where necessary, and describes the coordination efforts made to address Section 4(f) issues and concerns.

The impact analysis has been updated since the Draft EIS based on refinements to the action alternatives as described in Section 2.1.7.3, Design Options Incorporated in the Final EIS, and Section 2.1.7.4, Additional Changes to the Alternatives between the Draft EIS and Final EIS. In addition, the analysis has been updated to reflect new information concerning the Section 4(f) status of certain properties. This chapter includes final determinations of *de minimis* impacts. For some resources, the proposed *de minimis* impact findings from the Draft EIS have been changed; these changes are noted in the discussion of each resource. This chapter has been updated to reflect the new Section 4(f) regulations that were issued in March 2008.

**Section 4(f) Impact Analysis Area.** The Section 4(f) impact analysis area is the area adjacent to the action alternatives where resources could be affected in both Salt Lake and Utah Counties.

## 28.1 Regulatory Setting

Section 4(f) (49 United States Code [U.S.C.] 303) of the Department of Transportation Act of 1966 applies to publicly owned parks, recreation areas, and wildlife and waterfowl refuges and publicly or privately owned significant historic properties. The requirements of Section 4(f) apply only to agencies within USDOT (for example, the Federal Highway Administration [FHWA], Federal Transit Administration, and Federal Aviation Administration).

Section 4(f) prohibits USDOT agencies from approving the use of any Section 4(f) land for a transportation project, except as follows:

- First, the USDOT agency can approve the use of Section 4(f) land by making a determination that (1) there is no prudent and feasible alternative that would avoid the use of the Section 4(f) resource, *and* (2) the project includes all possible planning to minimize harm to that property.
- Second, the USDOT agency can approve the use of Section 4(f) property, by making a finding of *de minimis* impact for that property.

The option of making a finding of *de minimis* impact was created by an amendment to Section 4(f) in Section 6009 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted in August 2005. Section 6009 also required the Section 4(f) regulations to be updated in order to provide greater clarity regarding the standards and procedures for determining whether there are “prudent and feasible” avoidance alternatives for a potential Section 4(f) use.

In response to SAFETEA-LU, FHWA and the Federal Transit Authority (FTA) proposed comprehensive changes to their Section 4(f) regulations. The revised regulations were issued on March 12, 2008—after publication of the Draft EIS for this project, but before publication of the Final EIS. The new regulations are codified at 23 Code of Federal Regulations (CFR) 774. The new regulations incorporate the *de minimis* requirements, include a new definition of “no prudent and feasible avoidance alternative,” and include a new definition of “all possible planning to minimize harm” as well as a list of factors to consider in determining which alternatives minimize overall harm. This chapter has been updated since the Draft EIS to ensure consistency with these and other changes in the revised Section 4(f) regulations.

To provide additional context for the Section 4(f) findings in this chapter, the following sections provide information regarding each of the steps in the process for complying with Section 4(f):

- Identifying Section 4(f) resources
- Determining whether there is a use of any Section 4(f) resource
- Determining which of the uses, if any, are *de minimis*
- Identifying and evaluating avoidance and minimization alternatives for any uses that are not determined to be *de minimis*

## 28.1.1 Identifying Section 4(f) Resources

FHWA is responsible for determining which properties qualify as a Section 4(f) resource(s).

### 28.1.1.1 Historic Resources

Through its Section 4(f) regulations, FHWA has established that a historic property is considered significant—and therefore qualifies as a Section 4(f) resource—if the site is listed in, or is eligible for listing in, the National Register of Historic Places (NRHP). The consultation process established under Section 106 of the National Historic Preservation Act is used to identify properties that are listed in or eligible for the NRHP. Section 106 consultation involves thorough research to identify and evaluate potential NRHP-eligible sites in a project area, as well as any NRHP-listed properties in that area. The results of the Section 106 process are documented in Chapter 17, Historic, Archaeological, and Paleontological Resources. The results of the Section 106 process were used to identify historic resources that qualify for protection under Section 4(f) (see Section 28.3, Identification of Section 4(f) Resources).

### 28.1.1.2 Parks, Recreation Areas, and Refuges

Public lands that might qualify for the Section 4(f) regulations as parks, recreation areas, and refuges are identified as part of the National Environmental Policy Act (NEPA) process. In general, the boundaries of publicly owned parks, recreation areas, and refuges are well-established and can be readily identified. However, there are situations where the Section 4(f) status of publicly owned lands is unclear. For example, some publicly owned lands are managed for multiple uses or have no clear designation. In addition, there are some situations where privately owned lands are considered publicly owned for the purpose of Section 4(f) because the lands have been made available for public use under a lease or easement. Also, publicly owned land can be considered a Section 4(f) resource if it is planned to be developed as a park, recreation area, or refuge. Where a judgment call is needed, FHWA makes this determination in consultation with the authority that has jurisdiction over the resource. The authority with jurisdiction is the public agency that owns or manages the property.



## 28.1.2 Uses of Section 4(f) Resources

In 23 CFR 774.17, the FHWA regulations define three types of “uses” of Section 4(f) resources: use, temporary use, or constructive use.

- **Use** is “when land is permanently incorporated into a transportation facility.”
- **Temporary use** is “when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in §774.13(d).” A temporary use occurs when a temporary impact is adverse in terms of the statute’s preservationist purposes. The FHWA regulations, 23 CFR 774.13(d), define five criteria that must be met to make a finding that a temporary occupancy is not a Section 4(f) use. These criteria are:
  1. The duration must be temporary.
  2. The scope of work must be minor.
  3. There must be no anticipated permanent adverse physical impacts nor interference with the activities or purpose of the resource.
  4. The resource must be fully restored.
  5. There must be documented agreement between the appropriate federal, state, or local agencies having jurisdiction over the resource.
- **Constructive use** is “when there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.” A constructive use occurs when there is no physical impact or use, but the project’s proximity impacts—for example, noise or visual impacts—are “so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.” The regulations state that a substantial impairment occurs “only when the protected activities, features, or attributes of the resource are substantially diminished,” according to 23 CFR 774.15(a). The FHWA regulations provide specific instructions and examples for determining whether a constructive use has occurred.

FHWA is responsible for determining whether a project would result in the “use” of a Section 4(f) resource. This determination is made based on information developed during the NEPA process and considers input received from agencies with jurisdiction over the Section 4(f) resource.

### 28.1.3 *De Minimis* Impacts

If a project results in a use of a Section 4(f) resource, FHWA can approve that use by making a finding of “*de minimis* impact” (23 CFR 774.17). In general, a finding of *de minimis* impact requires a determination that the project will have “no adverse effect” on the protected activities, features, or attributes of the resource. In making this determination, FHWA must consider any avoidance, minimization, mitigation, or enhancement measures that have been incorporated into the project. If a finding of *de minimis* impact is made for a Section 4(f) resource, the requirements of Section 4(f) are satisfied; an analysis of “prudent and feasible avoidance alternatives” is not required for *de minimis* impacts.

The procedures for making *de minimis* impact determinations for parks, recreation areas, and refuges are slightly different from the procedures for making these determinations for historic sites.

For parks, recreation areas, and refuges, FHWA’s finding of *de minimis* impact requires the concurrence of the authority with jurisdiction over the resource, after the public has been given an opportunity to comment. The public comment opportunity generally is provided as part of the comment period on the NEPA document (such as an Environmental Impact Statement, or EIS).

For historic sites, FHWA’s finding of *de minimis* impact requires the concurrence of the State Historic Preservation Office (SHPO), who has jurisdiction over historic sites (including archeological sites that qualify for Section 4(f) protection), and must be developed in consultation with any consulting parties involved in the Section 106 process. (See Chapter 17, Historic, Archaeological, and Paleontological Resources, for a discussion of the Section 106 consultation process.)

Further information regarding *de minimis* impact findings can be found in the FHWA guidance document *Guidance for Determining De Minimis Impacts to Section 4(f) Resources* (FHWA 2005a).

### 28.1.4 Avoidance Alternatives and Minimization of Harm

If an alternative would use a Section 4(f) resource and the use is not *de minimis*, FHWA can approve that alternative only by determining that (1) there is no prudent and feasible avoidance alternative, and (2) the project includes all possible planning to minimize harm resulting from the use.

The first step in meeting this requirement is to develop and consider avoidance alternatives. An avoidance alternative is one that completely avoids the use of Section 4(f) resources. An avoidance alternative must be evaluated to determine whether it is prudent and feasible. The FHWA Section 4(f) regulations list a

series of factors to consider in determining whether an alternative is prudent and feasible. (See the definition of “prudent and feasible avoidance alternative” in 23 CFR 774.17). These factors are listed in Section 28.5.1, Methodology for Avoidance and Least-Harm Analyses. If there *is* a prudent and feasible avoidance alternative, no further analysis is needed; FHWA must avoid the Section 4(f) use.

If there is *not* a prudent and feasible avoidance alternative, FHWA proceeds to the second step of the Section 4(f) regulations: determining which alternative causes the least overall harm. The FHWA Section 4(f) regulations list a series of factors to consider in determining which alternatives “cause the least overall harm in light of the statute’s preservation purpose.” See 23 CFR 774.3(c)(1). These factors are listed in Section 28.5.1. After considering the factors listed in 23 CFR 774.3(c)(1), FHWA must select the alternative that causes the “least overall harm.”

For further information about Section 4(f) requirements, refer to the FHWA Section 4(f) regulations in 23 CFR 774; the FHWA *Section 4(f) Policy Paper* (FHWA 2005b); and the FHWA *Guidance for Determining De Minimis Impacts to Section 4(f) Resources* (FHWA 2005a).

## 28.2 Proposed Action

### 28.2.1 Summary of Purpose and Need

The proposed Mountain View Corridor (MVC) would be a major north-south road and high-capacity transit facility located in western Salt Lake County. The corridor transitions to an east-west road in northern Utah County. The project is proposed by the Utah Department of Transportation (UDOT) and FHWA, primarily to address congestion and mobility problems and increase transit availability (see Section 1.3.1, Purpose of the Project, in Chapter 1). The need for the MVC was first identified by the Wasatch Front Regional Council (WFRC) and the Mountainland Association of Governments (MAG) in their respective long-range transportation plans. The long-range plans indicate a need for additional transportation capacity in the MVC study area and recommend an integrated multi-modal approach for addressing long-range transportation demand in the project area.

The primary purpose of the Mountain View Corridor project is to improve mobility by reducing roadway congestion and by supporting increased transit availability in the MVC study area. Secondary purposes include supporting local growth objectives, increasing roadway safety, and supporting increased bicycle and pedestrian options.

The MVC alternatives are discussed by county. For this EIS, the range of alternatives includes a No-Action Alternative as well as roadway and transit alternatives in Salt Lake and Utah Counties.

- All of the action alternatives include a new major north-south roadway improvement between Interstate 80 (I-80) in Salt Lake County and Interstate 15 (I-15) in Utah County north of Utah Lake. These action alternatives include a freeway in Salt Lake County and various combinations of freeway and arterial connections in Utah County.
- All of the alternatives include a high-capacity north-south transit line on 5600 West extending from the Salt Lake City International Airport in the north to Herriman in the southern part of Salt Lake County.
- Tolling options for each alternative are being considered and analyzed. The right-of-way footprint is the same for all tolled and non-tolled options and does not affect this analysis. However, the number of lanes for the tolling options is generally reduced by one lane in each direction due to less travel demand.

For a complete description of each alternative considered in this EIS, see Chapter 2, Alternatives.

## 28.2.2 Salt Lake County Alternatives

### 28.2.2.1 5600 West Transit Alternative

The 5600 West Transit Alternative would be part of both of the Salt Lake County roadway alternatives (5800 West Freeway and 7200 West Freeway Alternatives). The two transit options on 5600 West are as follows:

- Dedicated Right-of-Way Transit Option (center-running)
- Mixed-Traffic Transit Option (in the right travel lane)

Figure 28-1, Salt Lake County Alternatives, shows the proposed 24-mile transit alignment for both transit options.

#### **Dedicated Right-of-Way Transit Option (Center-Running)**

This transit option is separated from roadway traffic by a curb. This type of transit facility separates vehicle traffic from the transit technology (bus rapid transit followed by rail transit in the future). The Dedicated Right-of-Way Transit Option would generally use the center median along 5600 West.

## Mixed-Traffic Transit Option

This transit option would be the same as the Dedicated Right-of-Way Transit Option except that it would have more station locations and the transit service is mixed with traffic. The Mixed-Traffic Transit Option would operate within the right vehicle travel lane along 5600 West in both directions. Whichever transit technology is used, it would require the transit vehicles to pull out of traffic at station locations.

### 28.2.2.2 5800 West Freeway Alternative

This roadway alternative includes a freeway from I-80 to a location near the Utah County–Salt Lake County line in Bluffdale (see [Figure 28-1](#), Salt Lake County Alternatives). The cross-section generally includes three lanes in each direction between I-80 and State Route (SR) 201 and between 13400 South and 16000 South in Bluffdale. Four lanes in each direction are included between SR 201 and 13400 South.

## Alignment Changes Since the Draft EIS

In relation to Section 4(f) resources, the 5800 West Freeway Alternative alignment changed in two locations since completion of the Draft EIS. The alignment was shifted east near Hunter Park to avoid utility conflicts in the Rocky Mountain Power corridor. This alignment shift increases the number of Section 4(f) uses at this location; the impacts increase by one.

The other location is near the West Ridge Golf Course. This alternative as shown in the Draft EIS avoided impacts to the West Ridge Golf Course. Since completion of the Draft EIS, the alignment has been shifted and now affects it.

### 28.2.2.3 7200 West Freeway Alternative

This alternative includes a freeway from I-80 to a location near the Utah County–Salt Lake County line in Bluffdale (see [Figure 28-1](#), Salt Lake County Alternatives). The cross-section generally includes three lanes in each direction between I-80 and SR 201 and between 13400 South and 16000 South in Bluffdale. Four lanes in each direction are included between SR 201 and 13400 South.

The 5800 West Freeway Alternative and the 7200 West Freeway Alternative converge at about 5400 South. Between 5400 South and about 16000 South in Bluffdale, the two alternatives merge and follow the same alignment (see [Figure 28-1](#)).

### **Alignment Changes Since the Draft EIS**

In relation to Section 4(f) resources, the 7200 West Freeway Alternative alignment changed in one location since completion of the Draft EIS. The alignment was shifted outside the ATK property near 4100 South. This alternative now affects the western edge of the West Ridge Golf Course.

## **28.2.3 Utah County Alternatives**

Three alternatives are being considered in Utah County. Note that the Utah County alternatives actually begin in Salt Lake County in Bluffdale near 16000 South where the Salt Lake County freeway alternatives end. The three alternatives in Utah County include a freeway along the western benches of Saratoga Springs to SR 73 and a connection to I-15.

### **28.2.3.1 Alignment Changes Since the Draft EIS**

The Utah County freeway alternatives have been shifted to the west near Camp Williams. This shift was made in coordination with the City of Herriman, Camp Williams, and landowners. This western shift avoids adversely affecting the Provo Reservoir Canal (see [Table 28.4-12](#), Description of Uses of Public Parks and Recreation Areas from the Utah County Alternatives, on page 28-57).

### **28.2.3.2 Southern Freeway Alternative**

This alternative consists of a six-lane, north-south freeway from Salt Lake County in the north that transitions to an east-west freeway just north of Utah Lake and connects to I-15 just south of the existing Pleasant Grove/Lindon interchange. The alignment is about 15 miles long with grade-separated interchanges (see [Figure 28-2](#), Southern Freeway Alternative).

### **Alignment Changes Since the Draft EIS**

In relation to Section 4(f) resources, the Southern Freeway Alternative alignment has shifted to the north near its crossing of the Jordan River. This shift was made to avoid adversely affecting the historic house at 7364 North 9550 West, Lehi.

The access to the Loch Lomond subdivision was changed since completion of the Draft EIS. Originally, a new access road to this subdivision was designed in Northlake Park. Now, residents would access Loch Lomond from 1900 South, and this alternative would not affect this park.

### 28.2.3.3 2100 North Freeway Alternative

This alternative consists of a six-lane, north-south freeway from Salt Lake County in the north that diverges and connects at two different locations in Utah County. One part of the freeway section continues south and terminates at the existing SR 73 in Saratoga Springs. The other freeway section turns east at 2100 North in Lehi and connects with I-15 at the existing 1200 West interchange. The connection to I-15 would include a freeway-to-freeway interchange and a local-access interchange. These alignments are about 11 miles long with grade-separated interchanges (see [Figure 28-3](#), 2100 North Freeway Alternative).

### Alternative Changes Since the Draft EIS

The 2100 North Freeway Alternative interchange with I-15 has changed since the Draft EIS to avoid adversely affecting the historic resources at that location. The ramps to northbound and southbound I-15 have been modified so that they would not adversely affect the historic resources at the interchange.

### 28.2.3.4 Arterials Alternative

This alternative consists of a six-lane, north-south freeway from Salt Lake County in the north that terminates at SR 73 in Saratoga Springs. This part of the alternative is about 7 miles long with grade-separated interchanges.

In addition, there are three east-west arterial components of this alternative (see [Figure 28-4](#), Arterials Alternative):

- **1900 South Arterial in Lehi.** This road is a seven-lane arterial at 1900 South that would connect with Redwood Road on the west and continue to I-15 on the east. It would connect with I-15 at the Pleasant Grove/Lindon interchange and would be about 7 miles long with at-grade intersections. This arterial is part of the MAG long-range plan.
- **2100 North Arterial in Lehi.** This arterial would be a seven-lane, east-west road along 2100 North that extends between the freeway alignment in Saratoga Springs and I-15 in Lehi (1200 West interchange). It would be about 4 miles long with at-grade intersections. This arterial is part of the MAG long-range plan.
- **Porter Rockwell Boulevard in Bluffdale.** This road would be a seven-lane arterial between the Mountain View Corridor freeway alignment at about 16000 South and the I-15 interchange at 14600 South in Bluffdale (Salt Lake County). This road would be about 5 miles long with at-grade intersections.

### **Alternative Changes Since the Draft EIS**

The 2100 North Arterial interchange with I-15 has changed to avoid adversely affecting the historic resources at that location. The ramps to northbound and southbound I-15 have been modified so that they would not adversely affect the historic resources at the interchange.

The Porter Rockwell Boulevard has shifted to the east to avoid adversely affecting the historic house at 15400 S. Pony Express Road and the Draper Irrigation Canal.

#### **28.2.4 Tolling Option**

A tolling option is being considered for all the roadway alternatives studied in this EIS (Salt Lake County and Utah County alternatives). For more information about the tolling options, see Section 2.2.4, Tolling Options for the MVC Alternatives. Since the footprint for each tolling option would be the same as the footprint for the non-tolled alternative, the impacts would be the same. Additional analysis for the Section 4(f) evaluation for the Tolling Option is not necessary.

#### **28.2.5 Construction Phasing**

The Preferred Transit Alternative (5600 West Transit Alternative with Dedicated Right-of-Way Option) would be built in phases as funding becomes available consistent with the phasing timeframes identified in WFRC's long-range transportation plan. The Preferred Roadway Alternatives (5800 West Freeway Alternative and 2100 North Freeway Alternative) also would be built in phases. The Utah Transportation Commission has identified partial funding for the north-south portions of the MVC in Salt Lake County and the east-west portions in Utah County. For more information on construction phasing, see Chapter 36, Project Implementation (Phasing).



## 28.3 Identification of Section 4(f) Resources

This section discusses the Section 4(f) resources in the MVC study area that could be affected by the proposed alternatives. For each county, this section discusses historic resources followed by public parks and recreation areas. There are no publicly owned wildlife or waterfowl refuges in the MVC study area that qualify for the Section 4(f) regulations. As used in this chapter, the term *historic resources* includes archeological resources.

### 28.3.1 Section 4(f) Resources in Salt Lake County

#### 28.3.1.1 Historic Resources

Historic resources for this project include houses, buildings, barns, and farmsteads and historic linear features such as canals and railroads. To identify historic resources, cultural resource surveys were conducted in the MVC study area. These studies documented all of the architectural buildings in the study area that are a minimum of 50 years old and identified which buildings are eligible for the NRHP. A 30% archaeological sample survey was conducted to identify prehistoric and other archeological sites. A 100% survey of the selected alternative will be assessed for archeological resources at a later date (pursuant to the project Programmatic Agreement with the Utah SHPO), and any Section 4(f) resources found at that time will be addressed according to 23 CFR 774.9(e).

Archaeological resources (canals, railroad tracks, and prehistoric sites) are protected by Section 4(f). 23 CFR 774.11(f) states that “Section 4(f) applies to all archaeological sites on or eligible for inclusion on the National Register, including those discovered during construction, except as set forth in [Section] 774.13(b).” 23 CFR 774.13(b)(1) is the exception for archaeological properties as Section 4(f) resources. It states that Section 4(f) does not apply if “the administration [FHWA] concludes that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place.” As a result, archaeological resources that are eligible for the NRHP only under National Register Criterion D are not protected by Section 4(f). In Salt Lake County, site 42SL156 (Bingham Creek site) is the only archaeological resource that is eligible under Criterion D of the NRHP as concurred by the Utah SHPO. Because it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, site 42SL156 is not a Section 4(f) resource (see [Table 2](#), Archaeological Sites Documented/Updated, in Appendix 17B, Cultural Resources Correspondence).

Except for the Bingham Creek site, no prehistoric NRHP-eligible archaeological resources have been identified in the Salt Lake County portion of the MVC study

▲ ▲

area. Archaeological resources including canals and railroad grades and tracks are eligible for the NRHP under Criteria A and/or C and are therefore subject to Section 4(f) regulations. The NRHP-eligible canals and railroad grades and tracks have been included in this Section 4(f) evaluation when they meet the NRHP criteria. [Table 28.3-1](#) lists the historic resources in Salt Lake County by alternative (the 5800 West Freeway and 7200 West Freeway Alternatives are identical between 5400 South and 16000 South). For detailed descriptions and photographs of the historic houses listed in [Table 28.3-1](#), see Appendix 28A, Historic Properties within Mountain View Corridor Study Area.

**Table 28.3-1. NRHP-Eligible Historic Resources in Salt Lake County**

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria <sup>a</sup>	SHPO Criteria <sup>b</sup>
<i>5600 West Transit Alternative (Both Transit Options)</i>			
West Branch Brighton Canal Extension (42SL304)	Historic irrigation/drainage canal.	A	NA
Salt Lake Garfield and Western Railroad (42SL306)	Railroad tracks and grade.	A	NA
Ridgeland Canal (43SL305)	Historic irrigation canal.	A	NA
Western Pacific Railroad (42SL337)	Railroad tracks and grade.	A	NA
Union Pacific Railroad (UPRR) (42SL300)	Railroad tracks and grade.	A and C	NA
Riter Canal (42SL274)	Historic irrigation canal.	A	NA
5610 W. and 5666 W. 2700 S. (5610 W. and 5666 W. are located on the same parcel)	5610 West is a historic house considered a World War II (WWII)–Era Cottage built in 1950. This historic house shares the same parcel as 5666 West 2700 South.  5666 West is a historic house considered an undefined Victorian style built in 1924. This historic house shares the same parcel as 5610 West 2700 South.  <i>[Since the completion of the Draft EIS, these resources have been combined into a single property since they share the same parcel.]</i>	A and C (for 5610)  A (for 5666)	A (for 5610)  B (for 5666)
3567 S. 5600 W.	Historic house considered a vernacular Period Revival style built in 1930.	A	B
3581 S. 5600 W.	Historic house built in 1940 considered a WWII-Era Cottage of Minimal Traditional style.	A	B
3601 S. 5600 W.	Historic house of Bungalow and Colonial Revival style built in 1930.	A	B
3602 S. 5600 W.	<i>Since completion of the Draft EIS, this historic house has been removed.</i>		
3611 S. 5600 W.	Historic house considered Minimal Traditional style built in 1938.	A	B

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria <sup>a</sup>	SHPO Criteria <sup>b</sup>
3627 S. 5600 W.	Historic house considered a Bungalow style built in two phases. The first part was constructed in 1929 and the other in 1938.	A	B
3630 S. 5600 W.	Historic house considered Bungalow and Prairie School style built in 1923.	A	B
3653 S. 5600 W.	Historic house considered a WWII-Era Cottage of Minimal Traditional style built in 1940.	A	B
3663 S. 5600 W.	Historic house considered a Foursquare residence of vernacular Victorian Eclectic style built in 1900.	A	B
3672 S. 5600 W.	Historic house considered a Post WWII-Era style with 13 contributing outbuildings. This house was constructed in 1942.	A	B
3690 S. 5600 W.	Historic house considered a vernacular Bungalow that was constructed in 1930. This house was moved to its present location in 1960.	A	B
3750 S. 5600 W.	Historic house considered a Bungalow style built in 1944. There are no outbuildings on the site.	A	B
3775 S. 5600 W.	Historic house considered a general Ranch/Rambler style built in 1955.	A	B
3809 S. 5600 W.	Historic house considered a Bungalow residence constructed in 1926.	A	B
3827 S. 5600 W.	Historic house considered a Bungalow style built in 1925. There are no outbuildings on the site.	A	B
3846 S. 5600 W.	Historic house considered a general Bungalow style built in 1917 with 12 contributing outbuildings.	A	B
3870 S. 5600 W.	Historic house considered a general Early Ranch/Rambler style built in 1955.	A	B
3917 S. 5600 W.	Historic house considered a Bungalow style built in 1923. There are no outbuildings on the site.	A	B
4095 S. 5600 W.	Historic house considered a Ranch/Rambler style built in 1950.	A	B
Utah and Salt Lake Canal (42SL295)	Historic irrigation canal.	A	NA
Denver & Rio Grande Western (D&RGW) Railroad – Garfield Branch (42SL333)	Historic railroad tracks and grade.	A	NA
D&RGW Railroad – Bingham Branch (42SL335)	Railroad tracks and grade adjacent to Old Bingham Highway.	A	NA
<i>5800 West Freeway Alternative</i>			
West Branch Brighton Canal Extension (42SL304)	Historic irrigation/drainage canal.	A	NA
Salt Lake Garfield and Western Railroad (42SL306)	Railroad tracks and grade.	A	NA

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria <sup>a</sup>	SHPO Criteria <sup>b</sup>
Western Pacific Railroad (42SL337)	Railroad tracks and grade.	A	NA
Union Pacific Railroad (UPRR) (42SL300)	Railroad tracks and grade.	A	NA
Riter Canal (42SL274)	Historic irrigation canal.	A	NA
5610 W. and 5666 W. 2700 S. (5610 W. and 5666 W. are located on the same parcel)	5610 West is a historic house considered a WWII-Era Cottage built in 1950. This historic house shares the same parcel as 5666 West 2700 South.  5666 West is a historic house considered an undefined Victorian style built in 1924. This historic house shares the same parcel as 5610 West 2700 South.  <i>[Since the completion of the Draft EIS, these resources have been combined into a single property since they share the same parcel.]</i>	A and C (for 5610)  A (for 5666)	A (for 5610)  B (for 5666)
5770 W. 2700 S.	Historic house considered a Rectangular Block style built in 1905.	A	B
5890 W. 3500 S.	Historic house considered a Bungalow with Period Revival style built in 1920.	A	B
5769 W. 3500 S.	Historic house considered a WWII-Era style exhibiting Minimal Traditional style built in 1940.	A	B
5765 W. 3500 S.	Historic house considered a WWII-Era Cottage exhibiting Minimal Traditional style built in 1930.	A	B
5755 W. 3500 S.	Historic house considered a WWII-Era Cottage exhibiting Minimal Traditional style built in 1940.	A and C	A
5742 W. 3500 S.	Historic house considered a WWII-Era Cottage exhibiting Minimal Traditional style built in 1915.	A and C	A
5741 W. 3500 S.	Historic house considered a Temple Form with Classical style built in 1890.	A and C	A
5724 W. 3500 S.	Historic house considered a WWII-Era Cottage with Minimal Traditional style built in 1930.	A and C	A
5712 W. 3500 S.	WWII-Era Cottage with Minimal Traditional style.	A	B
5671 W. 3500 S.	Early Ranch, single-family residence built in 1954.  <i>[Additional cultural resource studies were conducted to cover alignment shifts. This historic house was added since the completion of the Draft EIS.]</i>	A	B
3525 S. 5750 W.	Historic house considered a Rectangular Block with vernacular Victorian style built in 1920.	A	B
3530 S. 5750 W.	Historic house considered an Early Ranch with Minimal Traditional style built in 1947.	A	B
3547 S. 5750 W.	Historic house considered a WWII-Era Cottage style built in 1956.	A	B
3556 S. 5750 W.	Historic house considered a Ranch/Rambler exhibiting Post WWII-Era style built in 1952.	A	B
3590 S. 5750 W.	Historic house considered a Period Cottage exhibiting Greek Revival built in 1937.	A	B
Utah and Salt Lake Canal (42SL295)	Historic irrigation canal.	A	NA

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria <sup>a</sup>	SHPO Criteria <sup>b</sup>
D&RGW Railroad – Garfield Branch (42SL333)	Railroad tracks and grade.	A	NA
Bingham and Garfield Railroad (42SL384)	Historic railroad tracks and grade; the railroad would cross under the MVC alignment at about 7000 South and would parallel the MVC alignment on the east side. The MVC would cross this railroad track in three locations.	A and B	NA
D&RGW Railroad – Bingham Branch (42SL335)	Railroad tracks and grade adjacent to Old Bingham Highway.	A	NA
<i>7200 West Freeway Alternative</i>			
Salt Lake Garfield and Western Railroad (42SL306)	Railroad tracks that parallel I-80 on the south.	A	NA
Western Pacific Railroad (42SL337)	This historic railroad grade and tracks are located near the 7200 West Freeway Alternative in two locations (see <a href="#">Figure 28-5</a> , Historic Linear Features in Salt Lake County). The southern segment of this railroad is an abandoned berm about 2,000 feet south of the active railroad tracks that are adjacent to the UPRR tracks.	A	NA
Union Pacific Railroad (UPRR) (42SL300)	Railroad tracks that parallel the Western Pacific Railroad.	A	NA
Riter Canal (42SL274)	Historic irrigation canal.	A	NA
3075 S. 7200 W.	Historic house considered a Period Cottage with English Tudor style built in 1932.	A	B
3080 S. 7200 W.	Historic house considered a WWII-Era Cottage built in 1940.	A	B
3109 S. 7200 W.	Historic house considered an indeterminate 20th Century type built in 1940.	A	B
3372 S. 7200 W.	Historic house considered a Ranch/Rambler constructed in 1957.	A	B
7372 W. 3500 S.	Historic house considered a WWII-Era Cottage of Minimal Traditional style built in 1940.	A	B
7339 W. 3500 S.	Historic house considered a Hall-Parlor residence with Classical style built in 1870.	A and C	A
7329 W. 3500 S.	Historic house considered a Bungalow with Minimal Traditional style built in 1920.	A and C	A
7319 W. 3500 S.	Historic house considered a Central Block exhibiting Victorian-Era Queen Anne style built in 1880.	A and C	A
7015 W. 3500 S.	Historic house considered an Early Ranch with Post WWII-Era style built in 1950.	A	B
6921 W. 3500 S.	Historic house considered a Ranch with Rambler style built in 1955.	A and C	A
6891 W. 3500 S.	Historic house considered an Early Ranch built in 1950.	A and C	A
3551 S. 7200 W.	Historic house considered a WWII-Era Cottage exhibiting Minimal Traditional style built in 1950.	A and C	A

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria <sup>a</sup>	SHPO Criteria <sup>b</sup>
3641 S. 7200 W.	Historic house considered a Ranch/Rambler style built in 1955.	A	B
3717 S. 7200 W.	Historic house considered an Early Bungalow style built in 1914.	A	B
Utah and Salt Lake Canal (42SL295)	Historic irrigation canal.	A	NA
D&RGW Railroad – Garfield Branch (42SL333)	Historic railroad tracks.	A	NA
Bingham and Garfield Railroad (42SL384)	Historic railroad tracks and grade; the railroad would cross under the MVC alignment at about 7000 South and would parallel the MVC alignment on the eastside. The MVC would cross this railroad track in three locations.	A and B	NA
D&RGW Railroad – Bingham Branch (42SL335)	Railroad tracks and grade adjacent to the Old Bingham Highway.	A	NA

<sup>a</sup> The NRHP criteria are defined in Section 17.2.1, Resource Identification Methods.

<sup>b</sup> Utah SHPO ratings are for architectural properties only. These definitions are also found in Section 28.5.6.1, Summary of Section 4(f) Impacts for the 5800 West Freeway and 7200 West Freeway Alternatives. The Utah SHPO A and B ratings are:

- SHPO A-rated historic buildings are those that retain integrity; are an excellent example of a style or type; are unaltered or have only minor alterations or additions; or are individually eligible for the NRHP under Criterion C.
- SHPO B-rated historic buildings are those that were built within the historic period and retain integrity; are a good example of a style or type, but are not as well-preserved or well-executed as A buildings; have more substantial alterations or additions than A buildings, though the overall integrity is retained; or are eligible for the NRHP as part of a potential historic district or primarily for historical, rather than architectural, reasons.

The linear historic resources (canals and railroad tracks) for both the transit and freeway alternatives in Salt Lake County are shown in [Figure 28-5](#), Historic Linear Features in Salt Lake County. [Figure 28-6](#), Historic Properties for Transit Alignments in Salt Lake County, shows the historic houses for the transit alternative; [Figure 28-7](#), Historic Properties for Roadway Alignments in Salt Lake County, and [Figure 28-8](#), Hunter Park and Historic Properties, show the historic houses within or adjacent to the freeway alternatives in Salt Lake County.

### 28.3.1.2 Public Parks and Recreation Areas

Section 4(f) applies to publicly owned parks and recreation areas including those that are planned on publicly owned property. The publicly owned (existing and planned) parks and recreation areas located within or in close proximity to the Salt Lake County alternatives are shown in [Figure 28-9](#), Public Parks and Recreation Areas in Salt Lake County, and listed in [Table 28.3-2](#) below.

▼ ▼

Table 28.3-2. Existing and Planned Public Parks and Recreation Areas in Salt Lake County

Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
<i>5600 West Transit Alternative (Both Transit Options)</i>			
Wingpointe Golf Course	3206 South 100 North at the entrance to the Salt Lake City International Airport	This 18-hole, links-style golf course is 193.5 acres in size. The course is owned and operated by Salt Lake City and is open to the general public. It is bisected by Bangerter Highway at the entrance to the Salt Lake City International Airport. Wingpointe Golf Course also has a clubhouse and practice facilities (including a driving range) and is open most of the year due to its low-lying location.	Yes
Lee Kay Center for Hunter Education	Southern border is SR 201 and the northern border is 1300 South; the east-west borders are 5600 West and 7200 West, respectively (see <a href="#">Figure 28-10</a> , Land Uses for Lee Kay Center for Hunter Education, and <a href="#">Figure 28-11</a> , Southeast Portion of Lee Kay Center for Hunter Education)	<p>The Lee Kay Center for Hunter Education is owned and operated by the Utah Division of Wildlife Resources. It is about 1,253 acres in size. Five shooting ranges are located in the southeastern corner of the property (see <a href="#">Figure 28-11</a>, Southeast Portion of Lee Kay Center for Hunter Education). Other amenities include a trap and skeet area, an archery range, and a hunter safety range. The facility also has two classrooms used for hunter safety and education courses. A number of ponds lie along the northern boundary of the property, and several wildlife-viewing platforms overlook these ponds. These platforms are accessed from 1300 South.</p> <p>The shooting ranges are oriented north-south with targets on the north side. To the north of the shooting ranges is a storage and maintenance area. To the east is an open field which is separated from the shooting ranges by an earthen berm. Access to the open field is unrestricted. On occasion, the open field is used for dog-trial training. The open field includes a utility corridor and an access road that leads into the Center and to the storage and maintenance area. The open field is referred to as a safety zone by the Center. <a href="#">Figure 28-10</a>, Land Uses for Lee Kay Center for Hunter Education, shows the different uses within the Lee Kay Center for Hunter Education property.</p> <p>Access to the classrooms, shooting ranges, and dog-trial training area is from the SR 201 frontage road (2100 South).</p> <p>UDOT and FHWA have corresponded with the Division of Wildlife Resources regarding the functions and uses at this facility. Several meetings have been held with the Division to discuss impacts and possible mitigation measures (see Appendix 28B, Lee Kay Center for Hunter Education Correspondence).</p>	<p>Yes.</p> <p>FHWA has determined that the entire parcel (1,253 acres) is eligible as a Section 4(f) resource.</p>
Centennial Park	5405 W. 3100 S.	This 77-acre park includes eight softball diamonds, an outdoor swimming pool, an ice rink, eight basketball courts, eight tennis courts, and the West Valley Family Fitness Center. The park is owned and operated by West Valley City.	Yes

▲ ▲

Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
West Ridge Golf Course	Southwest quadrant of 5600 West and 4700 South in West Valley City	This 18-hole golf course is owned and operated by West Valley City. The course is about 190 acres and is open to the general public. It is about 6,600 yards long.	Yes
West Hills Middle School athletic field	About 8200 South 5600 West in West Jordan.	<p>The athletic field is about 9 acres in size. It is mainly used for educational purposes as part of the West Hills Middle School physical education program. West Hills Middle School is part of the Jordan School District.</p> <p>However, there is more than likely walk-on use during non-school hours that is not regulated by the Jordan School District. This athletic field is shown in <a href="#">Figure 28-9</a>, Public Parks and Recreation Areas in Salt Lake County.</p> <p><i>[This resource has been added since the completion of the Draft EIS.]</i></p>	<p>Yes.</p> <p>FHWA has determined that the athletic fields are eligible as a Section 4(f) resource. Their eligibility is based on the availability for “walk-on” use of these fields during non-school hours.</p>
<i>5800 West Freeway Alternative</i>			
Lee Kay Center for Hunter Education		See discussion above under the 5600 West Transit Alternative.	
Hunter Park	3500 South and about 6000 West	<p>This park is open to the public and is used for Little League baseball, softball tournaments, and youth soccer games. It is about 29 acres in size and includes four baseball/softball diamonds, bleachers, a concessions area, two soccer fields, two tennis courts, a volleyball court, two pavilions, and a playground. <a href="#">Figure 28-12</a>, Hunter Park Property Ownership, shows the different uses at the park.</p> <p>Hunter Park is owned and maintained by Salt Lake County. The eastern portion of the park, which has been leased to Salt Lake County, is owned by Rocky Mountain Power. Rocky Mountain Power owns property on the eastern boundary of Hunter Park totaling 10.8 acres (see <a href="#">Figure 28-12</a>). On August 10, 1981, an agreement was made between Utah Power and Light (now Rocky Mountain Power) and Salt Lake County stating that the County could use the Utah Power and Light property “...in connection with recreational facilities on adjacent areas” (see the attached agreement in Appendix 28C, Hunter Park Information and Correspondence). According to the August 10, 1981, lease agreement, a previous agreement had been made between Salt Lake County and Utah Power and Light that pre-dated the 1981 lease agreement.</p> <p>Because of this longstanding lease agreement, the property owned by Rocky Mountain Power is considered to be publicly owned as part of Hunter Park and therefore is considered a Section 4(f) resource.</p>	<p>Yes.</p> <p>FHWA has determined that the entire park is considered a Section 4(f) resource.</p>

▼ ▼



Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
Hunter High School athletic fields	4100 South 5600 West; athletic fields are located east of the school	The Hunter High School athletic fields include a soccer field and softball field (see <a href="#">Figure 28-13</a> , Hunter High School and Hillside Elementary School) located west of the school. Their main use is for school-related activities.  The soccer field and softball field are about 6.0 acres in size.	Yes.  FHWA has determined that the athletic fields are eligible as a Section 4(f) resource. Their eligibility is based on the availability for “walk-on” use of these fields during non-school hours.
Hillside Elementary School Athletic Fields	4400 South and 6200 West; east of Hillside Elementary School	The Hillside Elementary School athletic fields are located east of the school and are about 5.0 acres in size (see <a href="#">Figure 28-13</a> ). Hillside Elementary School is a year-round school that is in session for 11 months of the year (end of July to end of June).  There are two informal baseball diamonds with a backstop with a soccer field with goal posts between them (within the area of one of the baseball diamonds).  The school athletic fields are not open to the general public at all times. The Mountain View Corridor team has consulted with the principal of this school and with Granite School District officials (see Appendix 28E, Coordination with Granite School District and Hillside Elementary School).	Yes.  FHWA has determined that the athletic fields are eligible as a Section 4(f) resource. Their eligibility is based on the availability for ‘walk-on’ use of these fields during non school hours.
West Ridge Golf Course		See discussion above under the 5600 West Transit Alternative.	
Planned Park in West Jordan	About 8200 South and 5800 West	This planned park is shown on West Jordan’s land use map (October 11, 2007). This planned park is about 6.7 acres in size and is shown in <a href="#">Figure 28-9</a> , Public Parks and Recreation Areas in Salt Lake County. The property is currently owned by the City of West Jordan.  <i>[This planned park has been added since the completion of the Draft EIS.]</i>	Yes
Ron Wood Wash Baseball Complex	Intersection of New Bingham Highway and 9000 South	The Ron Wood Wash Baseball Complex is a publicly owned baseball facility that has five baseball/softball diamonds. This 30-acre site also contains bleachers, a trail, and a pavilion. This complex is owned and operated by the City of West Jordan.	Yes

▲ ▲

Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
Western Springs Park	12600 South and 4800 West in Riverton	<p>Western Springs Park is about 30 acres. Part of this park has been constructed; however, the area adjacent to the MVC has not been built. Riverton City owns the land, but Salt Lake County Parks and Recreation constructed, maintains, and schedules the facility. Design of the Western Springs Park began in late 2004 with initial construction starting in 2005. When completed, the park will include three lighted softball fields, a soccer field, sleigh-riding hills, a snack shack and equipment shed, and a large pavilion.</p> <p>This planned/existing park is considered a Section 4(f) resource since the property that will be or has been constructed is publicly owned. The Mountain View Corridor team has met with Riverton City and Salt Lake County Parks and Recreation regarding Western Springs Park and its development. Section 4(f) applies to publicly owned lands where parks and/or recreation facilities are planned.</p> <p>Information regarding the development of this park is included in Appendix 28D, Western Springs Park Correspondence.</p>	Yes
Monarch Meadows Park	Monarch Meadows Parkway and about 5000 West in Riverton	Monarch Meadows Park is about 20.4 acres in size and has two soccer fields, a playground, a picnic area, a pavilion, trails, and off-street parking. This park is owned and maintained by Riverton City and is open to the general public.	Yes
Foothill Park	Grandview Peak Drive and about 5000 West in Herriman	Foothill Park is owned by Salt Lake County and is open to the general public. This park is about 3.3 acres in size. Its amenities include open space and a play area. Parking is on Grandview Peak Drive.	Yes
<i>7200 West Freeway Alternative</i>			
Lee Kay Center for Hunter Education		See discussion above under the 5600 West Transit Alternative.	
Falcon Crest Park	About 4000 South and 7000 West	Falcon Crest Park is a park that is planned by West Valley City and is included in the City's General Plan. It is planned to be about 1.5 acres in size. The property is currently owned by West Valley City.	Yes
West Ridge Golf Course		See discussion above under the 5600 West Transit Alternative.	
Planned Park (City of West Jordan)		See discussion above under the 5800 West Freeway Alternative.	
Ron Wood Wash Baseball Complex		See discussion above under the 5800 West Freeway Alternative.	
Western Springs Park		See discussion above under the 5800 West Freeway Alternative.	
Monarch Meadows Park		See discussion above under the 5800 West Freeway Alternative.	
Foothill Park		See discussion above under the 5800 West Freeway Alternative.	

▼ ▼

### 28.3.1.3 Existing and Planned Trails and Bicycle Facilities

Several existing and planned trails and bicycle facilities lie within the impact analysis area in Salt Lake County. These facilities exist or are planned within existing rights-of-way for cross streets, canals, or other linear features. In cases where the facilities are within the roadway right-of-way, these trails will function as part of the roadway (sidewalk or shoulder); they are not primarily for recreational uses.<sup>1</sup> The March 1, 2005, FHWA Section 4(f) Policy Paper addresses whether trails on highway rights-of-way, which are designated as recreation trails, are subject to the requirements of Section 4(f). The guidance states that “if the trail is simply described as occupying the right-of-way of the highway and is not limited to any specific location within the right-of-way, a use of land would not occur...” as long as the alignment would not substantially impair the continuity of the trail.

The existing and proposed trails and bicycle facilities in Salt Lake County are listed in Chapter 11, Considerations Relating to Pedestrians and Bicyclists. None of the existing or planned facilities qualify as a Section 4(f) resource because they are all on land that is privately owned. Also, the existing and planned bicycle facilities along roads are not primarily for recreation and will be used as part of the overall transportation system in the Salt Lake Valley. No further Section 4(f) analysis is required for existing or planned trails and bicycle facilities in Salt Lake County.

## 28.3.2 Section 4(f) Resources in Utah County

### 28.3.2.1 Historic Resources

Table 28.3-3 below lists the historic resources in the Utah County impact analysis area by alternative. There are no known prehistoric archaeological resources in the Utah County portion of the study area that are eligible for the NRHP. For detailed descriptions and photographs of the historic houses listed in Table 28.3-3, see Chapter 17, Historic, Archaeological, and Paleontological Resources, and Appendix 28A, Historic Properties within Mountain View Corridor Study Area.

<sup>1</sup> Where a trail system currently exists apart from existing or planned roadways, it is considered a recreation resource and is discussed in that section of this evaluation. An example is the Jordan River Parkway Trail in Utah County.

▲ ▲

Table 28.3-3. NRHP-Eligible Historic Resources in Utah County

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria	SHPO Criteria
<i>Southern Freeway Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42SL287 and 42UT947)	The Provo Reservoir Canal runs along the western benches of northern Utah County and into Salt Lake County. The canal is about 20 feet wide with earthen banks.	A	NA
Salt Lake and Western Railway (42UT948)	Historic railroad grade; tracks no longer exist. Two segments were recorded in Utah County; one is located near SR 73 in Saratoga Springs and the other along 2100 North in Lehi.	A	NA
Utah Lake Distributing Canal (42SL286 and 42UT946)	This historic canal winds along the western benches of Utah County in Saratoga Springs. It flows northward into Salt Lake County. The canal is about 15 feet wide with earthen banks.	A	NA
Gardner Canal (42UT944)	Various segments of this canal exist in Saratoga Springs and Lehi. The canal has earthen banks and is less than 10 feet wide.	A	NA
Denver and Rio Grande Railroad (42SL293 and 42UT1125)	The Denver and Rio Grande Railroad runs through Utah and Salt Lake Counties. Through the MVC project study area, these historic tracks are located on the west side of I-15 and follow I-15 through Utah and Salt Lake Counties.	A	NA
Union Pacific Railroad Provo Line (42UT1029)	Historic railroad line that extends between Utah and Salt Lake Counties. Within the MVC study area, the railroad tracks are located on the east side of I-15. <i>[Additional cultural resource studies were conducted to cover alignment shifts. These railroad tracks were identified and have been added since the completion of the Draft EIS.]</i>	A	NA
Pumphouse (42UT1563)	A historic pumphouse that pumps water from the Jordan River to the east. <i>[Additional cultural resource studies were conducted to cover alignment shifts. This historic resource was identified and has been added since the completion of the Draft EIS.]</i>	A	NA
7364 N. 9550 W., Lehi	Historic house considered a WW-II Era Minimal Traditional style with aluminum siding built in 1937. Three noncontributing outbuildings are located on the parcel.	A	B
<i>2100 North Freeway Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42SL287 and 42UT947)	See discussion above for the Southern Freeway Alternative.	A	NA
Salt Lake and Western Railway (42UT948)	See discussion above for the Southern Freeway Alternative.	A	NA
Utah Lake Distributing Canal (42SL286 and 42UT946)	See discussion above for the Southern Freeway Alternative.	A	NA
Gardner Canal (42UT944)	See discussion above for the Southern Freeway Alternative.	A	NA

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria	SHPO Criteria
Denver and Rio Grande Railroad (42SL293 and 42UT1125)	See discussion above for the Southern Freeway Alternative.	A	NA
Union Pacific Railroad Provo Line (42UT1029)	See discussion above for the Southern Freeway Alternative.	A	NA
1025 W. State Street, Lehi	Historic service-bay business considered a Post-WWII and Contemporary Style constructed in 1958.	A	B
1020 W. State Street, Lehi	Historic house considered a Period Cottage/WWII-Era Cottage built in 1941.	A	B
1060 W. State Street, Lehi	Historic house considered a Period Cottage/WWII-Era Cottage built in 1941.	A	B
959 W. 2100 N., Lehi	Historic house considered a WWII-Era Cottage of Minimal Traditional style built in 1940. This historic house is located on the east side of I-15 near the 1200 West interchange.	A	B
951 W. 2100 N., Lehi	Historic house that is possibly a late-period Foursquare-type structure built in about 1937. This historic house is located on the east side of I-15 near the 1200 West interchange.	A	B
<i>Arterials Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42SL287 and 42UT947)	See discussion above for the Southern Freeway Alternative.	A	NA
Salt Lake and Western Railway (42UT948)	See discussion above for the Southern Freeway Alternative.	A	NA
Salt Lake and Utah Railroad (42SL510)	Historic railroad grade in Bluffdale just east of Redwood Road; tracks no longer exist.	A	NA
Utah Lake Distributing Canal (42SL286 and 42UT946)	See discussion above for the Southern Freeway Alternative.	A	NA
Utah and Salt Lake Canal (42SL295)	This canal is crossed by the Porter Rockwell Boulevard alignment.	A	NA
Denver and Rio Grande Railroad (42SL293 and 42UT1125)	See discussion above for the Southern Freeway Alternative.	A	NA
Union Pacific Railroad Provo Line (42UT1029)	See discussion above for the Southern Freeway Alternative.	A	NA
South Jordan Canal (42SL291)	Historic canal that originates in the Jordan Narrows section of the Jordan River. The canal is about 30 feet wide with earthen banks.	A	NA
Jordan and Salt Lake City Canal (42SL214)	Historic canal that originates in the Jordan Narrows section of the Jordan River. The canal is about 30 feet wide with earthen banks.	A	NA
East Jordan Canal (42SL290)	Historic canal that originates in the Jordan Narrows section of the Jordan River. The canal is about 35 feet wide with earthen banks.	A	NA

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Description of Historic Resources	NRHP Criteria	SHPO Criteria
Draper Irrigation Canal (42SL35)	The Draper Irrigation Canal originates in the Jordan Narrows and flows eastward toward Draper. From the Jordan River, the canal is about 15 feet wide with earthen banks. Much of the canal has been piped by the Jordan Valley Water Conservancy District, the owner of the canal. It is piped at about 15000 South and extends to 14600 South as a piped canal.	A	NA
15400 S. Pony Express Road, Bluffdale	Historic house considered not eligible. However, six agricultural outbuildings constructed in 1945 are considered eligible for the NRHP. House and outbuildings are located along the Porter Rockwell Boulevard alignment.	A	B
475 W. 14600 S., Bluffdale	<i>[Since the completion of the Draft EIS, the historic structures have been removed.]</i>		
Gardner Canal (42UT944)	See discussion above for the Southern Freeway Alternative.	A	NA
1025 W. State Street, Lehi	See discussion above for the 2100 North Freeway Alternative.	A	B
1020 W. State Street, Lehi	See discussion above for the 2100 North Freeway Alternative.	A	B
1060 W. State Street, Lehi	See discussion above for the 2100 North Freeway Alternative.	A	B
959 W. 2100 N., Lehi	See discussion above for the 2100 North Freeway Alternative.	A	B
951 W. 2100 N., Lehi	See discussion above for the 2100 North Freeway Alternative.	A	B
Pumphouse (42UT1563)	See discussion above for the Southern Freeway Alternative.	A	NA
7364 N. 9550 W., Lehi	See discussion above for the Southern Freeway Alternative.	A	B

The linear historic properties (such as canals, railroad tracks, and railroad grades) are shown in [Figure 28-14](#), Historic Linear Features in Utah County, for the three alternatives in Utah County. The historic houses are shown in [Figure 28-15](#), Historic Properties in Utah County.

### Multiple Property Submission

Unlike other areas through which the proposed MVC alternatives would pass, the northern Utah County area is largely characterized by an agricultural landscape consisting of such features as open fields, farmsteads, irrigation canals, field ditches, and transportation systems. Many of these features and the overall agricultural landscape have their origins in the historical period.

In recognition of this landscape, an NRHP Multiple Property Submission (MPS) form was prepared. The MPS form identified the types of sites and features that are typically found in historical agricultural landscapes and established criteria by which individual examples of these sites and features could be evaluated for their historical significance and eligibility for listing in the NRHP. In essence, the

▼ ▼

MPS establishes a context for considering historical elements of the agricultural landscape and functions as a tool for evaluating the importance of those elements. The overall landscape described in the MPS form is not a cultural resource in itself. However, individual elements identified in the MPS form, such as several of the irrigation canals and farmsteads discussed in Section 17.2.3.1, Architectural Properties, and Section 17.2.3.2, Archaeological Sites, of Chapter 17 are considered historic or archaeological resources and individually qualify as a Section 4(f) resource. No historic farmsteads were identified as part of the MPS that are found near or within any of the Mountain View Corridor alternatives in Utah County.

The historic canals that are part of the MPS and are included as separate Section 4(f) resources are the Provo Reservoir Canal/Murdock Ditch, the Utah Lake Distributing Canal, and the Gardner Canal. Secondary and tertiary irrigation ditches (that is, small, unnamed field ditches) are also part of the MPS landscape but are not individually eligible for inclusion in the NRHP and do not qualify as individual Section 4(f) resources.

The approximate boundaries for which the MPS was developed extend south from the Utah County–Salt Lake County line to the Pleasant Grove city boundaries east to I-15 and west to the foothills above Saratoga Springs.

The MPS form was submitted to, and accepted by, the Utah SHPO as a basis for evaluating the eligibility of individual resources in the MVC study area.

### **28.3.2.2 Public Parks and Recreation Areas**

The existing and planned publicly owned parks and recreation areas that are located within or adjacent to the alternatives in the Utah County impact analysis area are shown in [Figure 28-16](#), Public Parks and Recreation Areas in Utah County, and are described in [Table 28.3-4](#) below.

▲ ▲

Table 28.3-4. Existing and Planned Public Parks and Recreation Areas in Utah County

Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
<i>Southern Freeway Alternative</i>			
Jordan River Parkway Trail	Along the banks of the Jordan River between 17000 South in Bluffdale and Utah Lake in Utah County	<p>This trail extends 9 miles along the banks of the Jordan River in Utah County. The Jordan River Parkway Trail Authority maintains the trail, which is open to the general public. The trail is operated by Utah County Public Works in Utah County; it is a planned trail in Salt Lake County where Porter Rockwell Boulevard would cross. In Utah County, this multi-use trail is paved and is generally 8 feet to 10 feet wide. The trail extends into Salt Lake County to about 17000 South in Bluffdale. From there, the trail is intermittent to the Great Salt Lake and not constructed where the Porter Rockwell Boulevard would cross. Eventually, this trail is planned to reach the Great Salt Lake, which will create a contiguous trail corridor between Utah Lake and the Great Salt Lake.</p> <p>The trail is used by joggers, walkers, bicyclists, horseback riders, and inline skaters. The trail connects to other recreation areas including Inlet Park, Wetlands Park, Willow Park, Indian Ford Park, and the privately owned Thanksgiving Point area. The trail provides access to canoeing and fishing along the river as well as hiking, nature viewing, and horseback riding.</p> <p>In the Utah County impact analysis area, the trail is currently crossed by three existing roads: Saratoga Road, SR 73 (Lehi's Main Street), and 9600 North. All of these crossings are at-grade.</p> <p>The property for the existing trail is owned by private owners. Easements have been obtained from all landowners allow for the use and maintenance of the trail (see Appendix 28F, <i>De Minimis</i> Correspondence).</p>	Yes
Northlake Park	2000 South 500 West, Lehi	Northlake Park is owned by Lehi City and is open to the general public. This park is about 28 acres in size and lies just north of Utah Lake. This park is considered a community park which is larger than most neighborhood parks. Not all of the park's amenities have been constructed at this time. A playground, pavilions, and restrooms are planned for construction in the future. A secondary irrigation pond is located within the park boundary.	Yes

▼ ▼



Park/Recreation Area	Location	Description of Publicly Owned Parks and Recreation Areas	Considered a Section 4(f) Resource?
<i>2100 North Freeway Alternative</i>			
Jordan River Parkway Trail		See discussion above under the Southern Freeway Alternative.	
Pointe Meadow Park	2145 N. Pointe Meadow Drive, Lehi	Pointe Meadow Park is owned and operated by Lehi City. This publicly owned park is about 5.2 acres in size and includes a playground, basketball court, tennis court, and a pavilion. A satellite library for the Lehi City is also within the park boundaries.	Yes
North Entrance Park	State Street and 2100 North, Lehi	North Entrance Park is located near the existing 1200 West interchange with I-15. It is less than 2 acres in size. There is no pavilion, playground equipment, or other amenities at this park. It functions mainly as open space. A records search indicates that the park property is owned by UDOT. However, it is shown on Lehi City's park ownership and is maintained by the City.  <i>[This park has been added since the completion of the Draft EIS.]</i>	Yes.
<i>Arterials Alternative</i>			
Jordan River Parkway Trail		See discussion above under the Southern Freeway Alternative.	
Pointe Meadow Park		See discussion above under the 2100 North Freeway Alternative.	
North Entrance Park		See discussion above under the 2100 North Freeway Alternative.	
Northlake Park		See discussion above under the Southern Freeway Alternative.	

### 28.3.2.3 Existing and Planned Trails and Bicycle Facilities

A number of existing and planned trails and bicycle facilities are located in the Utah County impact analysis area; the Jordan River Parkway Trail is discussed above in [Table 28.3-4](#), Existing and Planned Public Parks and Recreation Areas in Utah County. For the same reasons discussed in Section 28.3.1.3, Existing and Planned Trails and Bicycle Facilities, Section 4(f) does not apply to these existing and planned facilities in the Utah County impact analysis area.

## 28.4 Use of Section 4(f) Resources

This section evaluates the potential for a “use” of the Section 4(f) resources by any of the action alternatives being considered for the MVC project. This section is organized by the impact analysis area for each county<sup>2</sup> (the Salt Lake County and Utah County impact analysis areas). The discussion of each impact analysis area is divided into two sections: a discussion of historic resources and a discussion of parks and recreation areas. Within each of those sections, the discussion is organized by alternative. For each Section 4(f) resource, this chapter makes one of the following findings:

- *De minimis* impact
- Use; not *de minimis*
- No use

A finding of “*de minimis* impact” was made when an alternative involved *a direct physical impact on a Section 4(f) resource but no adverse effect on the significant qualities of the resource*. For example, this finding was made when an alternative required a small strip of right-of-way along the edge of a Section 4(f) resource or when an alternative would place a new crossing over a historic canal or railroad track. For historic properties, this Section 4(f) finding of “*de minimis* use” corresponds to a finding of “no adverse effect” for the Section 106 process.

A finding of “use; not *de minimis*” was made when an alternative involved *a direct physical impact on a Section 4(f) resource and that impact would cause an adverse effect on the significant qualities of the resource*. This is the type of use that can be approved only if FHWA finds that (1) there is no prudent and feasible alternative to the use of the resource and that (2) the project includes all possible planning to minimize harm. For historic properties, this Section 4(f) finding of “use” corresponds to a finding of “adverse effect” for the Section 106 process (see Chapter 17, Historic, Archaeological, and Paleontological Resources).

The Utah SHPO has agreed to FHWA’s Section 4(f) *de minimis* finding for properties with a determination of “no historic properties affected” (no effect) or “no adverse effect”; the SHPO must concur with FHWA’s Section 106 determination. A copy of this letter is included in Appendix 28F, *De Minimis* Correspondence. It states that, “for historic properties, a finding of *de minimis* impact on a historic site may be made by the FHWA when Section 106 consultation results in the written concurrence of the SHPO with determination of ‘no adverse effect’ or ‘no historic properties affected’.” As documented in

---

<sup>2</sup> The northern portion of the Utah County impact analysis area includes a portion of Bluffdale in Salt Lake County. Porter Rockwell Boulevard, which is in Bluffdale and Draper, is included in the Utah County impact analysis area for ease of discussion and analysis.

Chapter 17, a Determination of Eligibility/Finding of Effect and an addendum Determination of Eligibility/Finding of Effect have been concurred by the SHPO which document the Section 106 effect for each eligible historic property. A copy of both Determination of Eligibility/Finding of Effects is found in Appendix 17B, Cultural Resources Correspondence.

A finding of “no use” was made when an alternative *avoided any direct physical impact on a Section 4(f) property and there would be no constructive or temporary use*. For historic properties, this Section 4(f) finding of “no use” corresponds to a finding of “no effect” or “no historic properties affected” for the Section 106 process.

For ease of reference, the tables below include both Section 106 findings and Section 4(f) findings for historic resources. For further explanation of the Section 106 findings, see Chapter 17, Historic, Archaeological, and Paleontological Resources.

**28.4.1 Use of Section 4(f) Resources by the Salt Lake County Alternatives**

**28.4.1.1 Historic Resources**

**5600 West Transit Alternative**

Table 28.4-1 summarizes the impacts to historic resources for both of the 5600 West Transit Options in Salt Lake County.

**Table 28.4-1. Summary of Section 4(f) Uses of Historic Resources from the 5600 West Transit Alternative**

Section 4(f) Type of Use	Section 106 Type of Effect	Transit Option	
		Dedicated Right-of-Way	Mixed- Traffic
<i>De minimis</i> impact	No adverse effect	27	27
Use (not <i>de minimis</i> )	Adverse effect	0	0

Table 28.4-2 below describes the impacts resulting from the transit alternative. The impacts are shown in Figure 28-17, Impacts to Historic Properties for Transit Alignments in Salt Lake County.

▲ ▲

Table 28.4-2. Description of Uses of Historic Resources from the 5600 West Transit Alternative

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic
West Branch Brighton Canal Extension (42SL304)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	Crosses just north of I-80 by culvert.	Crosses over bridge just south of the I-80 interchange with 5600 West.
Salt Lake Garfield and Western Railroad (42SL306)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	Crosses just north of I-80 at-grade or grade-separated.	Crosses over on a bridge (same bridge as the West Branch Brighton Canal).
Ridgeland Canal (43SL305)	No effect	No effect	No use	No use	No impact.	No impact.
Western Pacific Railroad (42SL337)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	Currently, 5600 West crosses at-grade; transit crossing would be at-grade or grade-separated.	Currently, 5600 West crosses at-grade; transit crossing would be at-grade or grade-separated.
Union Pacific Railroad (UPRR) (42SL300)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	Currently, 5600 West crosses over these historic railroad tracks and grade.	Currently, 5600 West crosses over these historic railroad tracks and grade.
Riter Canal (42SL274)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	Currently, 5600 West crosses over this canal.	Currently, 5600 West crosses over this canal.
5610 W. and 5666 W. 2700 S. (Note that 5610 W. and 5666 W. share the same parcel; they are included together.)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 190 square feet of this historic parcel at its southeastern corner for the widening of the 2700 South/5600 West intersection. No historic features or structures would be affected.	This transit option would affect about 4,100 square feet of this parcel along its eastern edge for the construction of a station. No historic features or structures would be affected.

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of- Way	Mixed- Traffic	Dedicated Right-of- Way	Mixed- Traffic	Dedicated Right-of-Way	Mixed-Traffic
3567 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 820 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 580 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3581 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 1,580 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect less than 1,020 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3601 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 610 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect less than 600 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3611 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 400 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 400 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic
3627 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 300 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 300 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3630 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 250 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 250 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3653 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 270 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 270 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3663 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 320 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 320 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of- Way	Mixed- Traffic	Dedicated Right-of- Way	Mixed- Traffic	Dedicated Right-of-Way	Mixed-Traffic
3672 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 530 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 530 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3690 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 270 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 270 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3750 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 680 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 680 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3775 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 460 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 460 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic
3809 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 360 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 360 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3827 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 600 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 600 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3846 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 330 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 330 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
3870 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 360 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 360 square feet of this historic property. It would affect the eastern edge of the historic property, resulting in a strip take. No historic features or structures would be affected.

▼ ▼



Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect		Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic
3917 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 600 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 600 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
4095 S. 5600 W.	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would affect about 150 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.	This transit option would affect about 150 square feet of this historic property. It would affect the western edge of the historic property, resulting in a strip take. No historic features or structures would be affected.
Utah and Salt Lake Canal (42SL295)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	This transit option would cross this canal near 4100 South.	This transit option would cross this canal near 4100 South.
D&RGW Railroad – Garfield Branch (42SL333)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	A new crossing would be required of this historic railroad. The crossing would be about 40 feet wide.	A new crossing would be required of this historic railroad. The crossing would be about 40 feet wide.
D&RGW Railroad – Bingham Branch (42SL335)	No adverse effect	No adverse effect	<i>De minimis</i> impact	<i>De minimis</i> impact	A new crossing would be required of this historic railroad near the Old Bingham Highway. The crossing would be about 40 feet wide.	A new crossing would be required of this historic railroad near the Old Bingham Highway. The crossing would be about 40 feet wide.

## 5800 West Freeway and 7200 West Freeway Alternatives

Table 28.4-3 summarizes the impacts from the Salt Lake County freeway alternatives.

**Table 28.4-3. Summary of Section 4(f) Uses of Historic Resources from the Salt Lake County Freeway Alternatives**

Section 4(f) Type of Use	Section 106 Type of Effect	Alternative	
		5800 West Freeway	7200 West Freeway
<i>De minimis</i> impact	No adverse effect	9	8
Use (not <i>de minimis</i> )	Adverse effect	12	6

Table 28.4-4 below describes the impacts to historic properties in Salt Lake County from the 5800 West Freeway and 7200 West Freeway Alternatives, the types of Section 106 effect (no effect, no adverse effect, and adverse effect), and the Section 4(f) use for each historic property. Shaded rows indicate that the impact to the resource is considered an adverse effect under Section 106 and a use (not *de minimis*) under Section 4(f). Because these alternatives would involve a Section 4(f) use and the use would not be *de minimis*, these alternatives require an avoidance analysis, which is discussed in Section 28.5, Avoidance and Least-Harm Analyses.

The tolling option for each freeway alternative would affect the same historic properties as the non-tolled alternative. The right-of-way footprint would be the same for the tolling options as for the non-tolling options. The impacts to historic houses are shown in Figure 28-18, Impacts to Hunter Park and Section 4(f) Resources, for the 5800 West Freeway Alternative, and Figure 28-19, Impacts to Historic Properties for 7200 West in Salt Lake County, for 7200 West in Salt Lake County.

**Table 28.4-4. Description of Uses of Historic Resources from the Salt Lake County Freeway Alternatives**

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
<i>5800 West Freeway Alternative</i>			
West Branch Brighton Canal Extension (42SL304)	No adverse effect	<i>De minimis</i> impact	The connection of the 5800 West alignment with I-80 would affect 1,800 linear feet of this canal. About 220 feet of this canal have been placed in a culvert for its I-80 crossing.  The segment used has been previously realigned and lacks integrity of location. Additional piping and/or relocation of this segment would not further affect the characteristics of the overall canal site that render it eligible for the NRHP.
Salt Lake Garfield and Western Railroad (42SL306)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this railroad with new bridges that are needed for the connection to I-80. about 490 linear feet would be crossed with new bridges that would span the length of the railroad grade and tracks.
Western Pacific Railroad (42SL337)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this railroad track and grade with new bridges. About 470 linear feet would be completely spanned by the 5800 West alignment.
Union Pacific Railroad (UPRR) (42SL300)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this railroad track and grade with the same bridges that would cross over the Western Pacific Railroad (42SL337). About 470 linear feet would be completely spanned by the new bridges.
Riter Canal (42SL274)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this historic canal and would affect about 400 linear feet.
5610 W. and 5666 W. 2700 S.	No effect	No use	These two historic structures share the same parcel (they were separated in the Draft EIS). They would not be affected by the 5800 West Freeway Alternative. However, a small portion of their parcel would be required by transit options as discussed in <a href="#">Table 28.4-2</a> above, Description of Uses of Historic Resources from the 5600 West Transit Alternative, resulting in a no adverse effect and use <i>de minimis</i> impact for Section 4(f).
5770 W. 2700 S.	No effect	No use	No impact; no further Section 4(f) analysis is required.
5890 W. 3500 S.	No effect	No use	No impact; no further Section 4(f) analysis is required.
5769 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
5765 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
5755 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
5742 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
5741 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
5724 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i> )	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of this resource. The 5800 West alignment would include an interchange with 3500 South at this location. Due to its close proximity to the interchange and the 5800 West alignment, no access can be provided to this historic property. Also, the interchange would require the use of the rock wall in front of this property, which is considered a contributing eligible feature.
5712 W. 3500 S.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
5671 W. 3500 S.	No effect	No use	No impact; no further Section 4(f) analysis is required. <i>[This historic house was added since the completion of the Draft EIS.]</i>
3525 S. 5750 W.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires the removal of this resource. The 5800 West alignment would include an interchange with 3500 South at this location. Due to its close proximity to the interchange and the 5800 West alignment, no access can be provided to this historic property.
3530 S. 5750 W.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
3547 S. 5750 W.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property. This is a permanent use according to Section 4(f). <i>[In the Draft EIS, this historic house was shown as a no effect and no use under Section 4(f). The 5800 West Alternative has been shifted east near Hunter Park to avoid utility conflicts. This shift resulted in an adverse effect to this resource.]</i>
3556 S. 5750 W.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
3590 S. 5750 W.	Adverse effect	Use; not <i>de minimis</i>	The 5800 West alignment would use and adversely affect this historic property because the alignment requires removal of the resource. This is a permanent use according to Section 4(f).
Utah and Salt Lake Canal (42SL295)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this canal, affecting about 550 linear feet.
D&RGW Railroad – Garfield Branch (42SL333)	No adverse effect	<i>De minimis</i> impact	The 5800 West alignment would cross over this railroad track and grade with a bridge. The track and grade would be spanned by the 5800 West alignment.

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
Bingham and Garfield Railroad (42SL384)	No adverse effect	<i>De minimis</i> impact	<p>The 5800 West Freeway Alternative would cross these historic railroad tracks in three locations. The first would be at about 7000 South; the railroad tracks would cross over the 5800 West Freeway with a new bridge. About 720 linear feet would be crossed at this location.</p> <p>The second would be at the 6200 South interchange, which would require an at-grade crossing; about 150 linear feet would be affected.</p> <p>The third crossing would be at about 7000 South. The railroad tracks would cross over the MVC. About 510 linear feet would be located on the new bridge over the MVC.</p>
D&RGW Railroad – Bingham Branch (42SL335)	No adverse effect	<i>De minimis</i> impact	The MVC alignment would cross over this railroad track and grade with new bridges. About 430 feet would be spanned completely by the MVC alignment.
<i>7200 West Freeway Alternative</i>			
Salt Lake Garfield and Western Railroad (42SL306)	No adverse effect	<i>De minimis</i> impact	The 7200 West alignment would cross over this railroad with three separate bridges that are needed for the connection to I-80 (mainline, I-80 eastbound onto the MVC, and MVC onto I-80 eastbound); about 1,210 linear feet would be spanned. Bridges would be used to span the railroad grade and tracks.
Western Pacific Railroad (42SL337)	No adverse effect	<i>De minimis</i> impact	The 7200 West alignment mainline would cross over this railroad track by bridge. The railroad grade and tracks would be spanned. Also, south of the UPRR tracks is an abandoned section of these tracks; the grade is all that remains. However, the 7200 West Freeway Alternative would not affect the historic railroad berm.
Union Pacific Railroad (UPRR) (42SL300)	No adverse effect	<i>De minimis</i> impact	The 7200 West mainline alignment would cross over this railroad track by bridge. The railroad grade and tracks would be spanned.
Riter Canal (42SL274)	No adverse effect	<i>De minimis</i> impact	The 7200 West Freeway Alternative would cross over this historic canal. About 400 linear feet of this canal would be affected.
3075 S. 7200 W.	No effect	No use	No impact; no further Section 4(f) analysis is required.
3080 S. 7200 W.	Adverse effect	Use; not <i>de minimis</i>	The 7200 West alignment would use and adversely affect this historic property because the alignment requires removal of the historic resource. All of the historic elements that make this property eligible for the NRHP would be removed as a result of the alternative.
3109 S. 7200 W.	No adverse effect	<i>De minimis</i> impact	The frontage road system for the 7200 West Freeway Alternative would require a strip take from this historic property. However, the historic building would remain and would not be used. The large trees along the western property boundary would not be affected, and the historic setting and feeling of this house would remain.

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
3372 S. 7200 W.	Adverse effect	Use; not <i>de minimis</i>	The 7200 West alignment would use and adversely affect this historic property because the alignment requires removal of the historic resource. All of the historic elements that make this property eligible for the NRHP would be removed as a result of the alternative.
7372 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
7339 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
7329 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
7319 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
7015 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
6921 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
6891 W. 3500 S.	No effect	No use	No impact/use; no further Section 4(f) analysis is required.
3551 S. 7200 W.	Adverse effect	Use; not <i>de minimis</i>	The 7200 West alignment would use and adversely affect this historic property because the alignment would require removal of the historic resource. All of the historic elements that make this property eligible for the NRHP would be removed as a result of the 7200 West Freeway Alternative.
3641 S. 7200 W.	Adverse effect	Use; not <i>de minimis</i>	The 7200 West alignment would use and adversely affect this historic property because the alignment would require removal of the historic resource. All of the historic elements that make this property eligible for the NRHP would be removed as a result of the alternative.
3717 S. 7200 W.	Adverse effect	Use; not <i>de minimis</i>	The 7200 West alignment would use and adversely affect this historic property because the alignment would require removal of the historic resource. All of the historic elements that make this property eligible for the NRHP would be removed as a result of the alternative.
Utah and Salt Lake Canal (42SL295)	No adverse effect	<i>De minimis</i> impact	The 7200 West mainline alignment and the improvements to 7200 West (frontage road system) would cross over this historic canal. This alternative would affect about 400 linear feet.
D&RGW Railroad – Garfield Branch (42SL333)	Adverse effect	Use; not <i>de minimis</i>	<p>The 7200 West mainline alignment would be shifted to the east to avoid the ATK property near 4100 South 7200 West. This shift would require that about 4,200 linear feet of this historic railroad tracks to be reconstructed farther north and east of its current location near 4100 South.</p> <p><i>[In the Draft EIS, these historic railroad tracks were shown as no adverse effect and de minimis impact. The 7200 West Freeway Alternative has been shifted north near 4100 South to avoid encroaching on the ATK property. This shift would require additional impacts to this resource.]</i></p>

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
Bingham and Garfield Railroad (42SL384)	No adverse effect	<i>De minimis</i> impact	<p>The 7200 West Freeway Alternative would cross these historic railroad tracks in three locations. The first would be at about 7000 South; the railroad tracks would cross over the 5800 West Freeway with a new bridge. About 720 linear feet would be crossed at this location.</p> <p>The second would be at the 6200 South interchange, which would require an at-grade crossing; about 150 linear feet would be affected.</p> <p>The third crossing would be located at about 7000 South. The railroad tracks would cross over the MVC. About 510 linear feet would be located on the new bridge over the MVC.</p>
D&RGW Railroad – Bingham Branch (42SL335)	No adverse effect	<i>De minimis</i> impact	The MVC alignment would cross over this railroad track and grade with a bridge. The track and grade would be completely spanned by the MVC alignment.

The historic properties that have a *de minimis* Section 4(f) use do not require further analysis for Section 4(f). However, those resources that involve a use and would be adversely affected require an avoidance analysis and measures to minimize harm; these are discussed in Section 28.5, Avoidance and Least-Harm Analyses.

#### 28.4.1.2 Public Parks and Recreation Areas

##### 5600 West Transit Alternative

A summary of impacts to parks and recreation areas for the 5600 West Transit Alternative is presented in [Table 28.4-5](#). The uses of affected parks and recreation areas are all *de minimis* Section 4(f) uses.

**Table 28.4-5. Summary of Section 4(f) Uses of Public Parks and Recreation Areas from the 5600 West Transit Alternative**

Section 4(f) Type of Use	Transit Option	
	Dedicated Right-of-Way	Mixed-Traffic
<i>De minimis</i> impact	2	2
Use; not <i>de minimis</i>	0	0
For more information, see Section 28.1.3, <i>De Minimis</i> Impacts.		

▲ ▲

Table 28.4-6 describes the Section 4(f) use to planned and existing parks and recreation areas in Salt Lake County for the 5600 West Transit Alternative.

**Table 28.4-6. Description of Uses of Public Parks and Recreation Areas from the 5600 West Transit Alternative**

Parks and Recreation Areas	Section 4(f) Type of Use		Description of Use	
	Dedicated Right-of-Way	Mixed-Traffic	Dedicated Right-of-Way	Mixed-Traffic
Wingpointe Golf Course	No use	No use	The transit options would not use or affect this golf course. The transit options would be located within the existing right-of-way for Bangerter Highway. No further Section 4(f) evaluation is required.	
Lee Kay Center for Hunter Education	<i>De minimis</i> impact	<i>De minimis</i> impact	<p>This transit option would require about 3.2 acres of right-of-way along the eastern edge of the Lee Kay Center for Hunter Education property, which is 1,253 acres in size. The transit option would not alter the overall use of this facility (see Figure 28-20, Impacts to Lee Kay Center for Hunter Education).</p> <p>The Utah Division of Wildlife Resources has agreed to the mitigation to offset the impacts to the Lee Kay Center for Hunter Education. The Division has agreed to the finding of <i>de minimis</i>.</p>	<p>This transit option would require about 2.7 acres of right-of-way along the extreme edge of the Lee Kay Center for Hunter Education property, which is 1,253 acres in size. The transit option would not alter the overall use of this facility (see Figure 28-20).</p> <p>The Utah Division of Wildlife Resources has agreed to the mitigation to offset the impacts to the Lee Kay Center for Hunter Education. The Division has agreed to the finding of <i>de minimis</i>.</p>
Centennial Park	<i>De minimis</i> impact	<i>De minimis</i> impact	<p>This transit option would affect less than 0.3 acre of the northwestern corner of this 77-acre park. None of the facilities would be altered or affected.</p> <p>West Valley City has agreed to the mitigation to offset the impacts to this park. They have responded with a letter which is included in Appendix 28F, <i>De Minimis</i> Correspondence.</p>	<p>This transit option would affect about 0.1 acre along the western edge of this 77-acre park. None of the facilities would be altered or affected.</p> <p>West Valley City has agreed to the mitigation to offset the impacts to this park. They have responded with a letter which is included in Appendix 28F, <i>De Minimis</i> Correspondence.</p>
West Ridge Golf Course	No use	No use	The transit options would not use this golf course.	
West Hills Middle School	No use	No use	The transit corridor passes behind the school where the athletic fields are located; there would be no use of the athletic fields. No further Section 4(f) analysis is required.	

▼ ▼



## 5800 West Freeway and 7200 West Freeway Alternatives

The impacts to public parks and recreation resources for the 5800 West Freeway and the 7200 West Freeway Alternatives are summarized in [Table 28.4-7](#). The uses at affected recreation resources are all *de minimis*.

**Table 28.4-7. Summary of Section 4(f) Uses of Public Parks and Recreation Areas from the Salt Lake County Freeway Alternatives**

Section 4(f) Type of Use	Alternative	
	5800 West Freeway	7200 West Freeway
<i>De minimis</i> impact	3	2
Joint development <sup>a</sup> (no use)	1	1
Use; not <i>de minimis</i>	2	0

<sup>a</sup> The FHWA Section 4(f) Policy Paper, dated March 2005, states that, when a public park, recreation area, or wildlife or waterfowl refuge is established and an area within the Section 4(f) resource is reserved for highway use prior to, or at the same time as, the 4(f) resource was established, the requirements of Section 4(f) do not apply (joint development). This is because the land used for the highway project was reserved from, and therefore has never been part of, the Section 4(f) area. Also note that there would not be a constructive use (23 CFR 774.15) of the 4(f) resource since it was jointly planned with the highway project.

[Table 28.4-8](#) below describes the Section 4(f) use or impacts to planned and existing public parks and recreation areas for the Salt Lake County freeway alternatives. These impacts are identical for the tolled options, since the right-of-way footprint for the tolling options is the same as for the non-tolling options.

▲ ▲

Table 28.4-8. Description of Uses of Public Parks and Recreation Areas from the Salt Lake County Freeway Alternatives

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
<i>5800 West Freeway Alternative</i>		
Lee Kay Center for Hunter Education	<i>De minimis</i> impact	<p>The 5800 West Freeway Alternative would bisect the eastern side of the Lee Kay Center for Hunter Education. An interchange is planned at 1300 South and 5800 West. This alternative would affect the 1,253-acre Center and require 90.2 acres of the Center's property (about 7% of the area) for the roadway; this impact includes the right-of-way needed for the utility corridor. This acreage includes the relocated utility corridor (the impacts from the utility corridor and the detention pond would not affect this recreation resource). Access to the Center would be relocated (see <a href="#">Figure 28-20</a>, Impacts to Lee Kay Center for Hunter Education). UDOT would need to also provide appropriate space for heavy equipment access to the site similar to current conditions.</p> <p>The 5800 West Freeway Alternative would not require taking any of the buildings or amenities that are currently within the Lee Kay Center for Hunter Education. None of the functions at this facility would be altered or removed by the 5800 West Freeway Alternative. The area that would be affected is an open field that is occasionally used by dog owners for dog-trial training. Impacts to the Lee Kay Center for Hunter Education are shown in <a href="#">Figure 28-20</a>. The primary dog-trial training area is in the upper center of the property and would not be affected by this alternative. None of the structures or shooting ranges would be affected or used by the 5800 West Freeway Alternative.</p> <p>The 5800 West Freeway Alternative would not alter or adversely affect the intended functions and uses at the Lee Kay Center for Hunter Education. The open field on the eastern edge of the property would be used for this alternative. This open area is occasionally used for dog-trial training; however, other locations at the Center have been designated as the primary dog-trial training area, as shown in <a href="#">Figure 28-20</a>. Locating the 5800 West Freeway Alternative in this open field would not preclude the continued use of the shooting ranges; they are separated by an earthen berm from the open field. FHWA is proposing a finding that the 5800 West Freeway Alternative would have a <i>de minimis</i> impact to this facility; therefore, no avoidance analysis has been conducted for the Lee Kay Center for Hunter Education.</p> <p>The Utah Division of Wildlife Resources has agreed to the mitigation to offset the impacts to the Lee Kay Center for Hunter Education. The Division has agreed to the finding of <i>de minimis</i>.</p>

▼ ▼

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
Hunter Park	<i>De minimis</i> impact	<p>The 5800 West Freeway Alternative would affect a portion of the park owned by Rocky Mountain Power (not the portion owned by Salt Lake County Parks and Recreation; see <a href="#">Figure 28-12</a>, Hunter Park Property Ownership). The use at Hunter Park is a grass area under the power lines as shown in <a href="#">Figure 28-18</a>, Impacts to Hunter Park and Section 4(f) Resources. None of the county facilities or park amenities are within the area that would be affected by the 5800 West Freeway Alternative.</p> <p>The 5800 West Freeway Alternative would use about 1.0 acre of this property for right-of-way, fill slopes, and a southbound on-ramp for an interchange with 3500 South. The total acreage for Hunter Park is 29 acres. The alignment would encroach no more than 50 feet into the grassy, open area under the power corridor. None of the park's amenities, ball fields, soccer fields, or other structures would be used by the 5800 West Freeway Alternative.</p> <p>Salt Lake County Parks and Recreation has agreed to the mitigation to offset the impacts to this park. Salt Lake County has agreed to the finding of <i>de minimis</i> use. A letter agreeing to the <i>de minimis</i> use is included in Appendix 28F, <i>De Minimis</i> Correspondence.</p>
Hunter High School athletic fields	Use; not <i>de minimis</i>	<p>The 5800 West Freeway Alternative would use a small portion of the soccer fields and softball diamond at Hunter High School. This alternative would use about 0.4 acre (these fields total about 6 acres). The impacts would not include the relocation of the power corridor over these fields. The impacts are shown in <a href="#">Figure 28-21</a>, Hunter High School and Hillside Elementary School Impacts. A retaining wall would be used to minimize impacts to these fields. The utility corridor, including the high-voltage electrical lines, would be relocated over both the soccer field and softball diamond. However, the utility relocation would not affect or alter the uses for the Hunter High School athletic fields. The utility corridor currently crosses over these athletic fields.</p> <p><i>[Since completion of the Draft EIS, it has been determined that a de minimis use finding (as shown in the Draft EIS) could not be obtained from Granite School District. Therefore, the use at this resource has changed from a de minimis use to a use.]</i></p>
Hillside Elementary School athletic fields	Use; not <i>de minimis</i>	<p>The 5800 West Freeway Alternative would use about 1.4 acres of the 5.0-acre athletic field. The use is at the eastern portion of the field and would be about 28% of the athletic field. The eastern informal baseball diamond would be affected by this alternative.</p> <p><i>[Since completion of the Draft EIS, it has been determined that a de minimis use finding (as shown in the Draft EIS) could not be obtained from Granite School District. Therefore, the use at this resource has changed from a de minimis use to a use.]</i></p>
West Ridge Golf Course	<i>De minimis</i> impact	<p>The 5800 West Freeway Alternative would use about 19.5 acres of this golf course. This alternative would use the back nine golf holes (holes 10 through 18) of this course.</p> <p>West Valley City has agreed to the mitigation to offset the impacts to the West Ridge Golf Course. The City has agreed to the finding of <i>de minimis</i> use. A letter from the City is included in Appendix 28F, <i>De Minimis</i> Correspondence.</p> <p><i>[The 5800 West Freeway Alternative has been shifted at this golf course and now affects it. In the Draft EIS, this golf course was shown as no use; now it is a de minimis use.]</i></p>

▲ ▲

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
Planned Park in West Jordan	No use	The Mountain View Corridor passes adjacent to this planned park, but no right-of-way acquisition would be required. No further Section 4(f) analysis is required.  <i>[This planned park was added since the completion of the Draft EIS.]</i>
Ron Wood Wash Baseball Complex	No use	The MVC would pass about 400 feet to the west of this baseball complex. This baseball complex is not an area where quiet and serenity is required or where these attributes are a part of its functionality and purpose. There would be no permanent use, temporary use, or constructive use of the Ron Wood Wash Baseball Complex. No further Section 4(f) analysis is required.
Western Springs Park	No use; joint development	During the MVC alternative development process, both Riverton City and Salt Lake County Parks and Recreation were contacted regarding park plans. A meeting was held with Salt Lake County on October 19, 2004, to review the MVC project and determine if the park and the MVC could be jointly developed. Based on discussions during the meeting, both UDOT and Salt Lake County determined that the park and the proposed MVC project could be developed without affecting the amenities planned for the park. UDOT minimized the right-of-way requirements in the area of Western Springs Park by using retaining walls and provided highway designs to Salt Lake County Parks and Recreation. After receiving the MVC plans, the County determined that the park plans could be implemented while reserving right-of-way for the planned MVC.  Appendix 28D, Western Springs Park Correspondence, provides the concurrence letters from Salt Lake County Parks and Recreation and Riverton City. In addition to coordinating with the County, a meeting was held with Riverton City on December 7, 2004, to discuss park plans and the ongoing coordination with the County. Riverton City stated that, if the overall amenities of the park would not be affected and the County had jointly developed the plans with UDOT, it would concur with reserving right-of-way for the MVC in the park plans. The concurrence letter from Riverton City is provided in Appendix 28D.  Because Western Springs Park was planned to reserve the right-of-way of the MVC (joint development as defined by question 16 in the FHWA Section 4(f) Policy Paper), the requirements of Section 4(f) do not apply; therefore, Western Springs Park is not carried forward in this Section 4(f) analysis.
Monarch Meadows Park	No use	The MVC alignment in this location completely avoids using any property from this park. There would be no permanent use, temporary use, or constructive use at this park. No further Section 4(f) analysis is required.
Foothill Park	No use	The MVC in this location completely avoids using any property from this park. There would be no permanent use, temporary use, or constructive use at this park. No further Section 4(f) analysis is required.
<i>7200 West Freeway Alternative</i>		
Lee Kay Center for Hunter Education	<i>De minimis</i> impact	The 7200 West Freeway Alternative would require about 1.8 acres of this 1,253-acre recreation area. An interchange is planned at 1300 South, and the footprint would use a small portion along its northwestern boundary. None of the amenities would be affected (see <a href="#">Figure 28-20</a> , Impacts to Lee Kay Center for Hunter Education).  The Utah Division of Wildlife Resources has agreed to the mitigation to offset the impacts to the Lee Kay Center for Hunter Education. The Division has agreed to the finding of <i>de minimis</i> use.

▼ ▼

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
Falcon Crest Park	No use	The 7200 West alignment completely avoids the property for this planned park. There would be no constructive-use or impact to this planned park. No further Section 4(f) analysis is required.
West Ridge Golf Course	<i>De minimis</i> impact	<p>The 7200 West Freeway Alternative would use about 5.0 acres of this golf course along its western border. This alternative would affect a portion of the 12th hole.</p> <p>West Valley City has agreed to the mitigation to offset the impacts to the West Ridge Golf Course. The City has agreed to the finding of <i>de minimis</i> use. A copy of their letter is found in Appendix 28F, <i>De Minimis</i> Correspondence.</p> <p><i>[The 7200 West Freeway Alternative has been shifted to avoid the ATK property. In the Draft EIS, this golf course was shown as no use; now it is a de minimis use.]</i></p>
Planned Park in West Jordan	No use	<p>See discussion above under the 5800 West Freeway Alternative.</p> <p><i>[This planned park was added since the completion of the Draft EIS.]</i></p>
Ron Wood Wash Baseball Complex		See discussion above under the 5800 West Freeway Alternative.
Western Springs Park		See discussion above under the 5800 West Freeway Alternative.
Monarch Meadows Park		See discussion above under the 5800 West Freeway Alternative.
Foothill Park		See discussion above under the 5800 West Freeway Alternative.

## 28.4.2 Use of Section 4(f) Resources by the Utah County Alternatives

### 28.4.2.1 Historic Resources

Table 28.4-9 summarizes the use of historic resources in the Utah County impact analysis area by alternative. In addition to the geographic alternatives, tolling options for each alternative are being considered and analyzed. The right-of-way footprint for each tolling option is the same as for the associated non-tolling option; however, the number of lanes for the tolling options is generally reduced by one lane in each direction due to less travel demand.

**Table 28.4-9. Summary of Section 4(f) Uses of Historic Resources from the Utah County Alternatives**

Section 4(f) Type of Use	Section 106 Type of Effect	Alternative		
		Southern Freeway	2100 North Freeway	Arterials
<i>De minimis</i> impact	No adverse effect	7	11	17
Use; not <i>de minimis</i>	Adverse effect	0	0	0

▲ ▲

Table 28.4-10 is a description of the impacts to historic resources by alternative; impacts to all alternatives in Utah County are shown in Figure 28-22, Impacts to Historic Properties in Utah County. These impacts are identical for the tolled options; the right-of-way footprint for the tolled options is the same as for the non-tolled options.

**Table 28.4-10. Description of Uses of Historic Resources from the Utah County Alternatives**

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
<i>Southern Freeway Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42UT947)	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would cross over a segment of this canal near the SR 73 interchange with the MVC. This alternative would require about 460 linear feet. The historic integrity of the grade would not be altered.  <i>[All of the Utah County freeway alternatives near Camp Williams have been shifted to the west. This shift will no longer adversely affect the Provo Reservoir Canal as shown in the Draft EIS. All Utah County alternatives would cross this canal but would no longer require the relocation of about 1.5 miles.]</i>
Salt Lake and Western Railroad (42UT948)	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would affect the segment of this abandoned railroad grade near the SR 73 interchange with the MVC. It would use about 580 linear feet of this historic railroad grade. The historic integrity of the grade would not be altered.
Utah Lake Distributing Canal (42UT946)	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would affect a segment of this canal located south of SR 73 and 4,400 feet west of Redwood Road. It would affect less than 330 linear feet of the canal. The historic integrity of the Utah Lake Distributing Canal would not be altered.
Gardner Canal (42UT944)	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would affect one segment of this historic canal. The section affected would be south of SR 73 and about 2,000 feet west of Redwood Road. It would affect about 330 linear feet. The historic integrity of the Gardner Canal would not be altered.
Denver and Rio Grande Railroad (42UT1125)	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would span these historic railroad tracks with a new bridge near its connection with I-15. The historic integrity of the Denver and Rio Grande Railroad would not be altered.
Union Pacific Railroad Provo Line (42UT1029)	No adverse effect	<i>De minimis</i> impact	The railroad would be spanned by widening the existing I-15 overpass over the rail line or constructing a new overpass. Neither of these types of alterations would use the characteristics of the site that render it eligible for the NRHP under the relevant criterion; the historic integrity will not be altered.  <i>[This historic resource was added since completion of the Draft EIS.]</i>

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
Pumphouse (42UT1563)	No effect	No use	The Southern Freeway Alternative would be located about 100 feet south of this historic pumphouse and would completely avoid it.  <i>[This historic resource was added since the completion of the Draft EIS.]</i>
7364 N. 9550 W., Lehi	No adverse effect	<i>De minimis</i> impact	The Southern Freeway Alternative would use about 450 square feet on the northern edge of this property. However, the historic house would not be affected, and the overall historic integrity would remain.  <i>[The Southern Freeway Alternative near the Jordan River has been shifted to the north to avoid adversely affecting this historic resource. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
<i>2100 North Freeway Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42UT947)	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would cross over two segments of this canal: near the SR 73 interchange with the MVC and along 2100 North. This alternative would affect a total of about 830 linear feet by crossing these two sections. The overall historic integrity of the canal would not change.  <i>[All of the Utah County freeway alternatives near Camp Williams have been shifted to the west. This shift will no longer adversely affect the Provo Reservoir Canal as shown in the Draft EIS. All alternatives would cross this canal but would no longer require the relocation of about 1.5 miles.]</i>
Salt Lake and Western Railroad (42UT948)	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would affect two segments of this abandoned railroad grade: near the SR 73 interchange with the MVC and along 2100 North. At the SR 73 segment, 770 linear feet would be used due to the MVC and an associated detention pond. At the 2100 North Freeway Alternative crossing, about 1,020 linear feet would be used for a new interchange with 10400 West and crossing. This is a total of 1,790 linear feet for this site. The overall historic integrity of the railroad grade would remain.
Utah Lake Distributing Canal (42UT946)	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would cross a segment of this canal along 2100 North. It would use about 430 linear feet of this canal. The overall historic integrity of the canal would not change.
Gardner Canal (42UT944)	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would cross the segment along 2100 North. This alternative would affect less than 1,020 linear feet. The historic integrity of the canal would not be altered.
Denver and Rio Grande Railroad (42UT1125)	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would span these historic railroad tracks with a new bridge at 2100 North near I-15. The historic integrity of the Denver and Rio Grande Railroad would not be altered.

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
Union Pacific Railroad Provo Line (42UT1029)	No adverse effect	<i>De minimis</i> impact	The railroad would be spanned by widening the existing I-15 overpass over the rail line or constructing a new overpass. Neither of these types of alterations would use the characteristics of the site that render it eligible for the NRHP under the relevant criterion; the historic integrity would not be altered.  <i>[This historic resource was added since the completion of the Draft EIS.]</i>
1025 W. State Street, Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative and the realigned US 89 would have minor impacts to this property. About 830 square feet along the southern line of the property would be used. The historic integrity of the structure would not be altered.
1020 W. State Street, Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would use about 680 square feet of the historic property along its northeastern border with I-15. The historic integrity of the structure would not be altered.  <i>[The 2100 North Freeway Alternative and its interchange with I-15 have been designed to avoid adverse impacts to this historic house. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
1060 W. State Street, Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would use about 390 square feet of the historic property along its northeastern border with I-15. The historic integrity of the structure would not be altered.  <i>[The 2100 North Freeway Alternative and its interchange with I-15 have been designed to avoid adverse impacts to this historic house. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
959 W. 2100 N., Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would use about 2,100 square feet of the historic property along its southwestern border with I-15. A non-contributing outbuilding would be affected. The historic integrity of this structure would not be altered.  <i>[The 2100 North Freeway Alternative and its interchange with I-15 have been designed to avoid adverse impacts to this historic house. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
951 W. 2100 N., Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North Freeway Alternative would use about 8,300 square feet of the historic property along its southwestern border with I-15. The historic integrity of this structure would not be altered.

▼ ▼



Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
<i>Arterials Alternative</i>			
Provo Reservoir Canal/Murdock Ditch (42SL287 and 42UT947)	No adverse effect	<i>De minimis</i> impact	<p>The Arterials Alternative would cross over three segments of this historic canal: near the SR 73 interchange with the MVC, along 2100 North, and along Porter Rockwell Boulevard. This alternative would use about 1,000 linear feet by crossing these three segments. The overall historic integrity of the canal would not change.</p> <p><i>[All of the Utah County freeway alternatives near Camp Williams have been shifted to the west. This shift will no longer adversely affect the Provo Reservoir Canal as shown in the Draft EIS. All alternatives would cross this canal but would no longer require the relocation of about 1.5 miles.]</i></p>
Salt Lake and Western Railroad (42UT948)	No adverse effect	<i>De minimis</i> impact	The Arterials Alternative would affect two segments of this abandoned railroad grade: near the SR 73 interchange with the MVC and along 2100 North. For the SR 73, segment, 500 linear feet would be used due to the MVC and an associated detention pond. For the 2100 North arterial, about 600 linear feet would be used. The overall historic integrity of the railroad grade would remain.
Salt Lake and Utah Railroad (42SL510)	No adverse effect	<i>De minimis</i> impact	Porter Rockwell Boulevard would cross over this railroad grade; it would use about 250 linear feet. The historic integrity of the Salt Lake and Utah Railroad would not be altered.
Utah Lake Distributing Canal (42UT946 and 42SL286)	No adverse effect	<i>De minimis</i> impact	The Arterials Alternative would cross two segments of this canal: on 2100 North and on Porter Rockwell Boulevard. It would use about 380 linear feet of this canal. The overall historic integrity of the canal would not change.
Utah and Salt Lake Canal (42SL295)	No adverse effect	<i>De minimis</i> impact	Porter Rockwell Boulevard would cross over this canal. It would use about 200 linear feet. The canal's historic integrity would not be altered.
Denver and Rio Grande Railroad (42SL293 and 42UT1125)	No adverse effect	<i>De minimis</i> impact	<p>The Arterials Alternative would cross over three segments of these historic railroad tracks.</p> <ul style="list-style-type: none"> <li>• Segment 1 – Porter Rockwell Boulevard would cross over these railroad tracks on a bridge.</li> <li>• Segment 2 – This alternative would cross under the railroad tracks at the 2100 North arterial.</li> <li>• Segment 3 – The 1900 South alternative would cross over this segment with a bridge that is about 115 feet long.</li> </ul> <p>Its historic integrity would not be altered.</p>

▲ ▲

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
Union Pacific Railroad Provo Line (42UT1029)	No adverse effect	<i>De minimis</i> impact	<p>The railroad would be located near the 1900 South arterial and Porter Rockwell Boulevard but would not be crossed over by these two roads. At the 2100 North arterial, it would be spanned by widening the existing I-15 overpass over the rail line or constructing a new overpass. Neither of these types of alterations would use the characteristics of the site that render it eligible for the NRHP under the relevant criterion; the historic integrity would not be altered.</p> <p><i>[This historic resource was added since the completion of the Draft EIS.]</i></p>
South Jordan Canal (42SL291)	No adverse effect	<i>De minimis</i> impact	Porter Rockwell Boulevard would cross over this canal on a bridge about 700 feet long. Its historic integrity would not be altered.
Jordan and Salt Lake City Canal (42SL214)	No adverse effect	<i>De minimis</i> impact	Porter Rockwell Boulevard would cross over this canal on a bridge about 700 feet long. Its historic integrity would not be altered.
East Jordan Canal (42SL290)	No adverse effect	<i>De minimis</i> impact	Porter Rockwell Boulevard would cross over this canal and would use about 700 linear feet. The canal's historic integrity would not be altered.
Draper Irrigation Canal (42SL350)	No adverse effect	<i>De minimis</i> impact	<p>Porter Rockwell Boulevard would use about 3,000 linear feet of this canal. However, more than 2,000 feet of this impact were recently placed into a pipe or were concrete-lined for the construction of I-15. The overall historic integrity of the Draper Irrigation Canal would not be altered.</p> <p>Note that the use of this canal was calculated using the amount of right-of-way needed for Porter Rockwell Boulevard. The impacts are less when only using the cut-and-fill lines (about 2,200 linear feet, of which most was recently piped).</p> <p><i>[Porter Rockwell Boulevard as shown in the Draft EIS would adversely affect this historic resource. However, Porter Rockwell Boulevard has been shifted to the east to minimize the impacts to this resource.]</i></p>
15400 S. Pony Express Road, Bluffdale	No adverse effect	<i>De minimis</i> impact	<p>Porter Rockwell Boulevard has been designed to avoid the use to the historic outbuildings. However, about 50,300 square feet (1.1 acres) would be used by this alternative. Since the six historic outbuildings would be avoided by Porter Rockwell Boulevard, the overall historic integrity would not be altered.</p> <p><i>[Porter Rockwell Boulevard as shown in the Draft EIS would adversely affect this historic resource. However, Porter Rockwell Boulevard has been shifted to the east to minimize the impacts to this resource.]</i></p>
Gardner Canal (42UT944)	No adverse effect	<i>De minimis</i> impact	The 2100 North arterial would cross over this historic canal. It would affect less than 550 linear feet. The overall historic integrity would not be altered.

▼ ▼

Resource Identification (Name, Address, and/or Site Number)	Section 106 Type of Effect	Section 4(f) Type of Use	Description of Use
1025 W. State Street, Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North arterial would use about 730 square feet of this historic property. The overall historic integrity would not be altered.
1020 W. State Street, Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North arterial would use less than 100 square feet from this property. The overall historic integrity would not be altered.  <i>[The 2100 North Freeway Alternative and its interchange with I-15 have been designed to avoid adverse impacts to this historic house. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
1060 W. State Street, Lehi	No effect	No use	The 2100 North arterial and its connection to I-15 would not affect this historic property.  <i>[The 2100 North Freeway Alternative and its interchange with I-15 have been designed to avoid adverse impacts to this historic house. The Draft EIS showed this historic house as an adverse effect; now it is a de minimis use.]</i>
959 W. 2100 N., Lehi	No adverse effect	<i>De minimis</i> impact	The 2100 North arterial would use about 620 square feet of this historic property on its southwestern boundary. The historic building would not be used. The overall historic integrity would not be altered.
951 W. 2100 N., Lehi	No effect	No use	The 2100 North arterial and its connection to I-15 would not use this historic property.
Pumphouse (42UT1563)	No effect	No use	The 1900 South arterial would not use this historic pumphouse. A retaining wall would be constructed to completely avoid this site.  <i>[This historic resource was added since the completion of the Draft EIS.]</i>
7364 N. 9550 W., Lehi	No adverse effect	<i>De minimis</i> impact	The 1900 South arterial would affect a strip of this historic property. This alternative would require about 4,100 square feet of property. Access would be maintained, and the historic house would not be used.

### 28.4.2.2 Public Parks and Recreation Areas

Table 28.4-11 summarizes the impacts to public parks and recreation areas in the Utah County impact analysis area.

**Table 28.4-11. Summary of Section 4(f) Uses of Public Parks and Recreation Areas from the Utah County Alternatives**

Section 4(f) Type of Use	Alternative		
	Southern Freeway	2100 North Freeway	Arterials
<i>De minimis</i> impact	1 <sup>a</sup>	1 <sup>a</sup>	1 <sup>a</sup>
Use; not <i>de minimis</i>	0	0	0
<sup>a</sup> The Jordan River Parkway Trail is crossed three times by the Arterials Alternative: two in Utah County where the parkway currently exists and one in Salt Lake County by Porter Rockwell Boulevard where it is planned. However, the <i>de minimis</i> finding for the Jordan River Parkway Trail is counted only once for the Arterials Alternative.			

Table 28.4-12 below summarizes the impacts to public parks and recreation areas by alternative in Utah County. These impacts are identical for the tolled options; the right-of-way footprint for the tolled options is the same as for the non-tolled options.

**Table 28.4-12. Description of Uses of Public Parks and Recreation Areas from the Utah County Alternatives**

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
<i>Southern Freeway Alternative</i>		
Jordan River Parkway Trail	<i>De minimis</i> impact	<p>The Southern Freeway Alternative would cross over the Jordan River on a bridge near the Jordan River Parkway, which is located about 400 feet east of the river. A box culvert about 20 feet wide, 10 feet tall, and 215 feet long would be used at this crossing. This new crossing would be designed and constructed according to trail guidelines from the American Association of State Highway and Transportation Officials (AASHTO).</p> <p>The continuity and use of this parkway would not be altered by this new crossing. The impacts result in a minor use or <i>de minimis</i> impact at this location. The crossing of the Jordan River Parkway Trail is shown in <a href="#">Figure 28-23</a>, Impacts to Public Parks and Recreation Areas in Utah County. Since there is a use of the Jordan River Parkway Trail (<i>de minimis</i>), a constructive-use impact does not apply.</p> <p>The MVC team has met with Utah County Public Works on several occasions regarding the project and its use of the Jordan River Parkway Trail. Utah County Public Works agrees with the mitigation commitments for the impacts to this parkway.</p> <p>A letter from the County documenting that they agree with the <i>de minimis</i> use is included in Appendix 28F.</p>
Northlake Park	No use	<p>This park would be avoided by the Southern Freeway Alternative. No further Section 4(f) analysis is required.</p> <p><i>[This park was affected as shown in the Draft EIS. Since the completion of the Draft EIS, the alignment and access into neighboring subdivisions have been relocated outside the park.]</i></p>
<i>2100 North Freeway Alternative</i>		
Jordan River Parkway Trail	<i>De minimis</i> impact	<p>The 2100 North Freeway Alternative would cross over the Jordan River on a bridge about 210 feet long. The Jordan River Parkway Trail is located directly east of the river and would also be spanned by this new bridge (see <a href="#">Figure 28-23</a>, Impacts to Public Parks and Recreation Areas in Utah County). This would be similar to other crossings of this trail in Salt Lake County. The crossing of the Jordan River Parkway Trail from the 2100 North Freeway Alternative bridge would be about 280 feet long. This new crossing would be designed and constructed according to AASHTO guidelines.</p> <p>The continuity and use of this parkway would not be altered. Impacts to the Jordan River Parkway Trail are shown in <a href="#">Figure 28-23</a>. This is a use; a constructive-use impact does not apply to the Jordan River Parkway Trail.</p> <p>The MVC team has met with Utah County Public Works on several occasions regarding the project and its use of the Jordan River Parkway Trail. Utah County Public Works agrees with the mitigation commitments for the impacts to this parkway.</p> <p>A letter from the County documenting that they agree with the <i>de minimis</i> use is included in Appendix 28F.</p>
Pointe Meadow Park	No use	<p>This alternative would not use any portion of this park. No further Section 4(f) analysis is required.</p>

▲ ▲

Parks and Recreation Areas	Section 4(f) Type of Use	Description of Use
North Entrance Park	No use	This alternative would not use any portion of this park. No further Section 4(f) analysis is required. <i>[This park was added since the completion of the Draft EIS.]</i>
<i>Arterials Alternative</i>		
Jordan River Parkway Trail	<i>De minimis</i> impact	<p>This alternative would cross the Jordan River Parkway Trail in three locations.</p> <ul style="list-style-type: none"> <li>Porter Rockwell Boulevard would cross a planned section of this parkway on a 700-foot-long bridge. No impact is anticipated at this location.</li> <li>The 2100 North arterial would cross over the Jordan River on a bridge about 280 feet long. The Jordan River Parkway Trail is directly east of the river and would also be spanned by this new bridge (see <a href="#">Figure 28-23</a>, Impacts to Public Parks and Recreation Areas in Utah County). This would be similar to other crossings of this trail in Salt Lake County. This new crossing will be designed and constructed according to AASHTO guidelines.</li> <li>The 1900 South arterial would cross over the Jordan River on a bridge near the Jordan River Parkway, which is about 400 feet east of the river. A culvert about 20 feet wide, 10 feet tall, and 190 feet long would be used for this crossing. This new crossing would be designed and constructed according to AASHTO guidelines.</li> </ul> <p>The Arterials Alternative would not adversely affect the Jordan River Parkway Trail. The impacts would result in a use that is considered <i>de minimis</i>. Impacts to the Jordan River Parkway Trail are shown in <a href="#">Figure 28-23</a>. No constructive use would occur at this location.</p> <p>The continuity and use of this parkway would not be altered by this new crossing. The impacts would result in a minor use or <i>de minimis</i> impact at this location. The crossing of the Jordan River Parkway Trail is shown in <a href="#">Figure 28-16</a>, Public Parks and Recreation Areas in Utah County. Since there would be a use of the Jordan River Parkway Trail (<i>de minimis</i>), a constructive use impact does not apply.</p> <p>The MVC team has met with Utah County Public Works on several occasions regarding the project and its use of the Jordan River Parkway Trail. Utah County Public Works agrees with the mitigation commitments for the impacts to this parkway.</p> <p>A letter from the County documenting that they agree with the <i>de minimis</i> use is included in Appendix 28F.</p>
Pointe Meadow Park	No use	This alternative would not use this park. No further Section 4(f) analysis is required.
North Entrance Park	No use	This alternative would not use this park. No further Section 4(f) analysis is required. <i>[This park was added since the completion of the Draft EIS.]</i>
Northlake Park	No use	This alternative would not use this park. No further Section 4(f) analysis is required.

▼ ▼

## 28.5 Avoidance and Least-Harm Analyses

The Salt Lake County roadway alternatives—the 5800 West Freeway Alternative and the 7200 West Freeway Alternative—would each involve the non-*de minimis* use of some Section 4(f) resources. Before approving such a use, FHWA must determine whether there is a feasible and prudent alternative that entirely avoids the use of Section 4(f) resources. If there is no prudent and feasible avoidance alternative, then FHWA must compare the alternatives to determine which one causes the least overall harm.

This section includes the required avoidance and least-harm analyses for the Salt Lake County roadway alternatives. The section is organized as follows:

- Section 28.5.1 describes the methodology for conducting avoidance and least-overall-harm analyses under Section 4(f). This methodology is based on the current FHWA Section 4(f) regulations, which were finalized after the publication of the Draft EIS for this project.
- Section 28.5.2 considers alternative locations and modes for a transportation improvement in Salt Lake County and for the No-Action Alternative. These alternatives are evaluated to determine (1) whether they can completely avoid Section 4(f) properties, and, if not, (2) whether they would cause less overall harm. This section finds that there is no prudent and feasible alternative that completely avoids Section 4(f) properties. It also finds that there is no alternative location/mode that would cause less overall harm than the 5800 West Freeway and 7200 West Freeway Alternatives.
- Section 28.5.3 considers a series of potential alignment shifts along the 5800 West Freeway Alternative. At each location, whether that alternative involves the non-*de minimis* use of a Section 4(f) resource, this section considers a range of alignment shifts to determine (1) whether the alignment shift is a prudent and feasible avoidance alternative, and, if not, (2) whether the shift would cause less overall harm. At each location, this section finds that the potential shifts are not prudent and feasible avoidance alternatives and/or that they would not cause less overall harm.
- Section 28.5.4 considers a series of potential alignment shifts along the 7200 West Freeway Alternative. Like Section 28.5.3, it evaluates each alignment shift to determine (1) whether it is a prudent and feasible avoidance alternative, and, if not, (2) whether it would cause less overall harm. At each location, this section finds that the potential shifts are not

prudent and feasible avoidance alternatives and/or that they would not cause less overall harm.

- Section 28.5.5 compares the 5800 West Freeway Alternative and 7200 West Freeway Alternative to determine which of these alternatives would cause the least overall harm. This section reviews each of the factors listed in the Section 4(f) regulations for consideration in a least-harm analysis. This section finds that the 5800 West Freeway Alternative is the alternative that causes the least overall harm.
- Section 28.5.6 reviews each of the proposed Section 4(f) uses along the 5800 West Freeway Alternative and discusses the measures to minimize harm for each of those uses. This section focuses on ensuring that, at each location, the project includes all possible planning to minimize harm. Consistent with that requirement, this section summarizes minimization and mitigation measures that have been incorporated into the project.

## **28.5.1 Methodology for Avoidance and Least-Harm Analyses**

### **28.5.1.1 Overall Approach**

Section 28.5 presents the avoidance and least-overall-harm analyses together rather than first analyzing avoidance alternatives and then separately considering alternatives that could minimize harm. Combining these analyses makes it possible to evaluate alternative locations/modes and potential alignment shifts in an orderly and readable manner.

For example, the 5800 West Freeway Alternative would use a cluster of 12 historic houses near 3500 South in West Valley City. Section 28.5 considers four possible alignment shifts to avoid those houses. One alignment shift is a complete avoidance alternative, while the other three all involve some impacts to Section 4(f) resources—that is, they avoid the 12 historic houses but use other Section 4(f) resources such as Hunter Park. Section 28.5 presents all four of those shifts together, thus providing the reader with a single consolidated discussion of alternatives both at the overall project level and at each specific location where an alternative would involve the use of Section 4(f) resources.



### 28.5.1.2 Scope of Analysis

Section 28.5 focuses only on Salt Lake County roadway alternatives. The Salt Lake County roadway alternatives (5800 West Freeway and 7200 West Freeway Alternatives) are analyzed because each would involve the use of some Section 4(f) resources.

Section 28.5 does not include an avoidance analysis for Utah County because the alternatives in Utah County, including the Preferred Roadway Alternative (2100 North Freeway Alternative), would involve only *de minimis* impacts on Section 4(f) resources. An avoidance analysis is not required for *de minimis* impacts on Section 4(f) resources.

Section 28.5 does not include an avoidance analysis for the transit component of the project because Section 4(f) applies only to USDOT actions, and USDOT is not proposing to take any action with regard to the transit project. In addition, the Section 4(f) uses for the transit alternatives would be *de minimis* and would not require avoidance alternatives. In the future, if FTA funding is sought for the transit project, FTA would be required to comply with Section 4(f). FTA would conduct its Section 4(f) compliance as part of its own NEPA review for the transit project. See Chapter 36, Project Implementation (Phasing).

For disclosure purposes, this Section 4(f) evaluation describes the 5600 West Transit Alternative (see Section 28.2.2.1, 5600 West Transit Alternative), describes the Section 4(f) resources along the transit alternative (see Section 28.3.1, Section 4(f) Resources in Salt Lake County), and describes the potential Section 4(f) uses that could result from implementation of the transit alternative (see Section 28.4.1, Use of Section 4(f) Resources by the Salt Lake County Alternatives).

### 28.5.1.3 Avoidance Analysis

When there is a Section 4(f) use and it is not *de minimis*, FHWA is required to develop and evaluate avoidance alternatives. Under FHWA regulations, an avoidance alternative is one that *completely avoids* the use of Section 4(f) resources. Therefore, an alternative that avoids one Section 4(f) resource but uses another would *not* be considered an avoidance alternative. FHWA must review each avoidance alternative and determine whether it is “prudent and feasible.”



The term “feasible and prudent avoidance alternative” is defined as follows in 23 CFR 774.17:

- (1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of the protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.
- (2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- (3) An alternative is not prudent if:
  - (i) It compromises the project to the degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
  - (ii) It results in unacceptable safety or operational problems;
  - (iii) After reasonable mitigation, it still causes:
    - (A) Severe social, economic, or environmental impacts;
    - (B) Severe disruption to established communities;
    - (C) Severe disproportionate impacts to minority or low-income populations; or
    - (D) Severe impacts to the environmental resources protected under other federal statutes;
  - (iv) It results in additional construction, maintenance, or operational costs of extraordinary magnitude;
  - (v) It causes other unique problems or unusual factors; or
  - (vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

All of these factors are considered when determining the feasibility and prudence of an avoidance alternative. If there is a prudent and feasible avoidance alternative, FHWA cannot approve an alternative that uses a Section 4(f) resource.



#### 28.5.1.4 Least-Overall-Harm Analysis

If there is no prudent and feasible avoidance alternative, FHWA must select the alternative that “causes the least overall harm in light of the statute’s preservation purpose”—that is, the alternative that minimizes harm (see 23 CFR 774.3[c]). Under 23 CFR 774.3(c), the “least overall harm” is determined by balancing the following factors:

- The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property)
- The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection
- The relative significance of each Section 4(f) property
- The views of the official(s) with jurisdiction over each Section 4(f) property
- The degree to which each alternative meets the purpose and need for the project
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)
- Substantial differences in costs among the alternatives

#### 28.5.1.5 Role of the Project Purpose in Section 4(f) Decision-Making

If an alternative does not meet the project’s purpose, it can be rejected regardless of whether that alternative avoids or uses Section 4(f) property. However, the basis for dismissing such an alternative is slightly different depending on whether the alternative being considered is an avoidance alternative or whether it is an alternative that uses Section 4(f) property.

***Project Purpose in Avoidance Analysis.*** An avoidance alternative is one that completely avoids all Section 4(f) property. If an avoidance alternative does not meet the project’s purpose, that alternative is determined to be “imprudent.” Therefore, it is not considered further. See the definition of “prudent and feasible avoidance alternative” in 23 CFR 774.17 (which states that an “an alternative is not prudent if ... it compromises the project to the degree that it is unreasonable to proceed with the project in light of its stated purpose and need”).

***Project Purpose in Least-Overall-Harm Analysis.*** An alternative that uses some Section 4(f) property is not considered to be an avoidance alternative; therefore,

under FHWA regulations, the “prudence” test does not apply. Instead, an alternative that uses some Section 4(f) property is evaluated to determine whether it causes less overall harm. One of the factors considered under that standard is “the degree to which each alternative meets the purpose and need for the project.” See 23 CFR 774.3(c)(1)(v). An alternative that is unable to meet the project purpose can be eliminated on that basis as part of the least-overall-harm analysis. In addition, if an alternative meets the project purpose but to a lesser extent, that factor can be considered along with others in deciding to eliminate that alternative.

For more information about Section 4(f) requirements, see the FHWA Section 4(f) regulations in 23 CFR 774; the FHWA Section 4(f) Policy Paper (FHWA 2005b); and the FHWA Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources (FHWA 2005a).

### 28.5.2 Salt Lake County – No-Action and Location/Mode Alternatives

Location alternatives are alignments on parallel or similar corridors that avoid affecting Section 4(f) resources along the 5800 West Freeway or 7200 West Freeway Alternatives. The Salt Lake County location alternatives are shown in [Figure 28-24](#), Location Alternatives in Salt Lake County. These alternatives are global avoidance alternatives that apply to either 5800 West or 7200 West.

An *Alternatives Screening Report* (Parsons Brinckerhoff 2004) and an *Alternatives Screening Report Addendum* (HDR 2007) were prepared for the Mountain View Corridor. The analysis in this chapter is based on the two screening reports. The *Alternatives Screening Report* and *Alternatives Screening Report Addendum* describe the screening process for eliminating alternatives. Location alternatives considered for this Section 4(f) analysis are summarized from these reports. Also summarized in the *Alternatives Screening Report* are the other studies conducted in the MVC study area:

- Western Transportation Corridor Study
- North Valley Connectors Study (Utah County)
- Inter-Regional Corridor Alternative Analysis

The location alternatives (roadway concepts) considered for Salt Lake County are described in the following sections.

### 28.5.2.1 No-Action Alternative

The No-Action Alternative was considered as an alternative for avoiding the use of Section 4(f) resources. The No-Action Alternative avoids the use of any Section 4(f) resources because it does not involve construction of any transportation improvements. However, the No-Action Alternative does not meet the project's purpose as documented in Section 1.3.1, Purpose of the Project, and as summarized in Section 28.2.1, Summary of Purpose and Need. For this reason, the No-Action Alternative is not a prudent and feasible avoidance alternative.

### 28.5.2.2 Construct a North-South Freeway along SR 111

SR 111, in western Salt Lake County, was evaluated as a potential avoidance alternative. This north-south route begins at SR 201 on the north and terminates at about 12600 South in Riverton. An alternative was evaluated to extend SR 111 from I-80 to about 5400 South (Parsons Brinckerhoff 2005).

A freeway on SR 111 was eliminated from consideration for the following reasons:

- The travel model sensitivity analysis that was conducted during the screening process showed that a major facility on SR 111 would have limited use compared to a facility that was more geographically centered in the MVC study area and therefore would not improve mobility in the study area. In addition, the principles from the Growth Choices process (see Chapter 3, Growth Choices) that this alternative would not meet include:
  - Providing public infrastructure that is efficient and adequately maintained
  - Providing mobility through a variety of interconnected transportation choices in the study area
  - Integrating local land use with regional transportation systems
- The preliminary traffic analysis also showed that SR 111 is too far west to meet north-south travel demand. Model runs for the analysis found that motorists would not travel that far west to go north-south. Therefore, this alternative would not meet the project purpose of improving mobility in the study area.
- The spacing analysis completed in the *Western Transportation Corridor Study* using the guidelines in the *Highway Capacity Manual* (Transportation Research Board 2000) also supported eliminating this alternative. The SR 111 freeway was too far west. A corridor was needed

farther east to alleviate the anticipated traffic volumes. This alternative was eliminated for the reasons listed in the bullet above.

- SR 111 extends through portions of historic downtown Magna with 170 historic buildings that are considered Section 4(f) resources, which could be affected (Parsons Brinckerhoff 2005).
- This alternative would not provide a direct connection into Utah County. This connection between Salt Lake and Utah Counties is needed to provide necessary capacity.

A freeway along SR 111 is not an avoidance alternative because it would require the use of Section 4(f) resources in historic downtown Magna. Therefore, this alternative must be evaluated under Section 774.3(c)(1) for its potential to minimize overall harm. Based on the factors in Section 774.3(c)(1), FHWA has concluded that this alternative would not minimize overall harm because it does not meet the project's purpose and because it causes greater harm to Section 4(f) resources. Therefore, it is not considered further.

It might be possible to modify the SR 111 alternative so that it completely avoids all of the Section 4(f) resources in the Magna area as well as any other Section 4(f) resources that might be present along SR 111. However, other drawbacks would still make this alternative imprudent. Specifically, this alternative is located too far west in the MVC study area to meet the project's purpose. In addition, the design modifications (such as lengthy rerouting, bridging, or tunneling) needed to completely avoid the numerous historic properties in the Magna area would likely make this alternative prohibitively expensive,<sup>3</sup> unable to meet the project purpose, and/or infeasible from an engineering perspective. For these reasons, it is not necessary to conduct further studies of the potential to develop a complete Section 4(f) avoidance alternative along SR 111.

### 28.5.2.3 Convert Bangerter Highway to a Freeway

This alternative would convert the existing Bangerter Highway (which has at-grade intersections) to a freeway with grade-separated interchanges. Bangerter Highway begins at I-80 near the Salt Lake City International Airport and connects to I-15 at about 13800 South in Draper. Bangerter Highway is the eastern boundary of the MVC study area through most of the Salt Lake Valley.

---

<sup>3</sup> Recent estimates performed on other projects for constructing four-lane highways in a bored tunnel ranged from \$340 million to \$500 million per mile (in 2007 dollars).

Converting Bangerter Highway to a freeway was eliminated from consideration for the following reasons:

- Converting Bangerter Highway to a freeway alternative does not meet the project purpose of improving mobility in the MVC study area. This alternative does not resolve traffic congestion issues to the west in the MVC study area, and it is too far east to meet the north-south needs of the traveling public.
- The spacing analysis completed in the *Western Transportation Corridor Study* using the guidelines in the *Highway Capacity Manual* also supported eliminating this alternative. Converting Bangerter Highway to a freeway alternative was eliminated because it is too far east to meet the north-south needs of the traveling public.
- As explained in the *Alternatives Screening Report*, this alternative is not feasible or practical because the impacts to environmental resources are too great. This alternative would require more than 400 relocations,<sup>4</sup> significantly more than either the 7200 West Freeway Alternative or the 5800 West Freeway Alternative. The Bangerter Highway corridor is mostly developed on both the east and west sides, particularly from 2400 South to 10400 South in South Jordan.
- A freeway along Bangerter Highway does not fulfill the transportation goals defined in the Envision Utah Growth Choices process. The Growth Principles and Objectives that this alternative would not meet include:
  - Providing public infrastructure that is efficient and adequately maintained
  - Providing mobility through a variety of interconnected transportation choices in the study area
  - Integrating local land use with regional transportation systems
- Bangerter Highway does not extend into Utah County; it connects to I-15 in Draper at about 13800 South. The Mountain View Corridor is needed in both Salt Lake and Utah Counties.

Converting Bangerter Highway to a freeway is not an avoidance alternative because it would require the use of Section 4(f) resources (Jordan River Parkway, other linear resources such as canals and railroad tracks, and historic houses near Redwood Road). Therefore, this alternative must be evaluated under Section

---

<sup>4</sup> This analysis considered that the first row of structures on either the east or west side of Bangerter Highway would require relocation. This analysis did not consider the wider footprint needed for grade-separated interchanges and did not distinguish between residential and business properties.

774.3(c)(1) for its potential to minimize overall harm. Based on the factors in Section 774.3(c)(1), FHWA has concluded that this alternative would not minimize overall harm because it does not meet the project purpose and because it could cause greater harm to Section 4(f) resources. Therefore, it is not considered further.

#### **28.5.2.4 Widen Existing North-South Arterials (No Freeway)**

This avoidance alternative includes improving and widening north-south arterials including 4800 West, 5600 West, 6400 West, 7200 West, and 8400 West. These improvements would include changes such as additional travel lanes, turn lanes, wider shoulders, and other changes that would increase the capacity of the roadways. The existing roads would remain arterials with at-grade intersections, including traffic signals; they would not be converted to freeways. This alternative was eliminated from consideration as not prudent for the following reasons:

- Improving arterials in the MVC study area does not meet the project purpose of improving mobility in the MVC study area. This alternative does not provide the additional capacity needed to relieve traffic-congestion issues in the MVC study area in 2030.
- Improving north-south arterials without providing a new north-south freeway does not fulfill the transportation goals defined in the Envision Utah Growth Choices process. Although this alternative would increase mobility, it would not substantially increase the capacity of the road system. Also, using 5600 West for high-volume, long-distance road travel would make it more difficult to implement a viable transit line with pedestrian-oriented development on 5600 West as planned in the Growth Choices vision.
- Improving north-south arterials (with the capacity expansion described above) would involve impacts to adjacent Section 4(f) properties located along many of these routes. The types of historic resources affected by the 5800 West Freeway and 7200 West Freeway Alternatives (residential properties built during and just after the WWII era) are widespread throughout the study area and are located along all of the major existing roads. Any significant road widening would affect multiple Section 4(f) resources.

Widening north-south arterials with no Mountain View Corridor is not an avoidance alternative because it would require the use of Section 4(f) properties adjacent to existing arterials. Therefore, this alternative must be evaluated under Section 774.3(c)(1) for its potential to minimize overall harm. Based on the



factors in Section 774.3(c)(1), FHWA has concluded that this alternative would not minimize overall harm because it does not meet the project purpose, would cause substantial disruption to existing communities, and would likely cause greater harm to Section 4(f) resources due to the impacts of widening on adjacent properties. Therefore, this alternative is not considered further.

It might be possible to modify this alternative so that it completely avoids any use of Section 4(f) resources along existing arterials in the study area. However, the design modifications (such as a narrower footprint) needed to completely avoid the numerous historic properties along existing roads would further limit the benefits of the project and prevent the project from meeting the purpose. Other approaches to avoidance, such as tunneling, are fundamentally incompatible with the character of the existing roads, which are at-grade arterials that serve adjacent development. Therefore, it is not necessary to conduct further studies of the potential to develop a complete Section 4(f) avoidance alternative that involves widening existing arterials.

### **28.5.2.5 Convert Redwood Road to a Freeway**

Redwood Road (SR 68) is located at about 1700 West in Salt Lake County. It is the only other connection between Salt Lake and Utah Counties other than I-15 and its associated frontage roads. Redwood Road crosses into northern Utah County near Camp Williams.

Converting Redwood Road (SR 68) was eliminated from consideration for the following reasons:

- North of Bangerter Highway, Redwood Road is too far east to meet the expected travel demand and would not meet the project purpose of improving mobility in the study area.
- Improving Redwood Road in the MVC study area does not meet the project purpose. This alternative does not resolve traffic congestion issues in the MVC study area because it does not accommodate the needed capacity for future traffic volumes.
- Converting Redwood Road to a freeway does not fulfill the transportation goals defined in the Envision Utah Growth Choices process. The Growth Principles and Objectives that this alternative would not meet include:
  - Providing public infrastructure that is efficient and adequately maintained
  - Providing mobility through a variety of interconnected transportation choices in the study area
  - Integrating local land use with regional transportation systems



- The Redwood Road corridor in Salt Lake County and northern Utah County is mainly urbanized. There would be a high number of residential and business relocations compared to the other alternatives. Using an analysis similar to that used for the Convert Bangerter Highway to a Freeway alternative, converting Redwood Road to a freeway would have more relocations. The right-of-way is much smaller on this major arterial compared to Bangerter Highway.
- An increased number of Section 4(f) resources would be affected by converting Redwood Road to a freeway. Based on three recent NEPA documents developed for projects along Redwood Road in Salt Lake County, a total of 122 historic properties (not including publicly owned parks and recreation resources) are located along this corridor (UDOT 2005a, 2005b, 2007). In addition, this alternative would pass through the Riverton historic district, which is listed in the NRHP.

Converting Redwood Road to a freeway is not an avoidance alternative because it would affect historic properties adjacent to Redwood Road. Therefore, this alternative must be evaluated under Section 774.3(c)(1) for its potential to minimize overall harm. Based on the factors in Section 774.3(c)(1), FHWA has concluded that this alternative would not minimize overall harm because it does not meet the project purpose, causes severe disruption to established communities, and likely causes greater harm to Section 4(f) resources. Therefore, this alternative is not considered further.

It might be possible to modify the Redwood Road alternative so that it completely avoids the use of Section 4(f) resources along Redwood Road. However, the design modifications (such as a narrower footprint) needed to completely avoid the numerous historic properties along existing roads would further limit the benefits of the project and prevent the project from meeting the purpose. Other approaches to avoidance, such as tunneling, are fundamentally incompatible with the character of the existing Redwood Road, which is an at-grade arterial that serves adjacent development. Therefore, it is not necessary to conduct further studies of the potential to develop a complete Section 4(f) avoidance alternative that involves converting Redwood Road to a freeway.



### 28.5.2.6 Implement Transit Only

Several transit alternatives were considered, including a transit-only alternative. This alternative would provide additional transit opportunities in the MVC study area. This alternative was eliminated from further consideration for the reasons listed below:

- The Wasatch Front Regional Council concluded that both highway and transit investments are needed in the MVC study area to meet existing and future traffic needs. A transit-only alternative does not provide sufficient capacity to meet the requirements of the project purpose, specifically the need to reduce roadway congestion.
- A transit-only alternative does not fulfill the transportation goals defined in the Envision Utah Growth Choices process. The Growth Principles and Objectives that this alternative would not meet include:
  - Providing public infrastructure that is efficient and adequately maintained
  - Providing mobility through a variety of interconnected transportation choices in the study area
  - Integrating local land use with regional transportation systems

Although a transit-only alternative has been eliminated, a transit alternative is being considered along 5600 West from the Salt Lake City International Airport to about 13000 South in Herriman as part of the freeway alternatives in Salt Lake County.

The transit-only alternative could possibly be developed in a manner that entirely avoids the use of Section 4(f) properties. But even if it is an avoidance alternative, the transit-only alternative would not meet the project purpose. Therefore, it is not considered further.

### 28.5.2.7 Other Potential Avoidance Alternatives in the MVC Study Area

In addition to the alternatives described above, FHWA and UDOT have also considered the potential to develop other alternatives in the MVC project study area that would completely avoid all Section 4(f) resources. Due to the linear nature of many of the historic resources (canals and railroad tracks), any new north-south freeway running the length of the study area in Salt Lake County would likely use some Section 4(f) resources. For example, there are three historic canals (West Branch of the Brighton Canal, Riter Canal, and Utah and Salt Lake Canal) and seven historic railroad tracks and grades that are Section

4(f) resources (see [Figure 28-5](#), Historic Linear Features in Salt Lake County). Each of these historic linear resources generally runs east-west through the MVC study area. Also, these historic canals and railroad tracks extend beyond the limits of the MVC study area. Any avoidance alternative in the MVC study area would have a Section 4(f) use.

In addition to these linear Section 4(f) resources, there are a number of historic properties, districts, and subdivisions scattered throughout the MVC study area (see [Figure 28-25](#), Historic Subdivisions in West Valley City and Magna). For example, many homes constructed during the WWII and post-WWII eras are now over 50 years old (or approaching 50 years old) and therefore are considered historic. The widespread presence of these structures also precludes the development of a new north-south freeway that completely avoids all Section 4(f) resources.

Finally, it is conceivable that alternatives could be developed that would include extensive tunneling as a method for avoiding impacts to historic properties. However, the costs of tunneling would be exorbitant. Although tunneling might be warranted on a limited scale for historic properties that are considered highly valuable, the extreme costs of tunneling are not justifiable here, where the historic properties affected are mostly common examples of widespread property types. Therefore, design modifications involving tunneling or other similar techniques have not been developed.

#### **28.5.2.8 Other Potential Avoidance Alternatives outside the MVC Study Area**

Alignments and alternatives outside the MVC study area would not meet the project purpose and therefore were not evaluated. Specifically, alternatives outside the MVC study area would not improve mobility by reducing roadway congestion in the study area (see [Table 1.3-1](#), Measures Used To Define the Project's Purpose and Need and Develop Alternatives).

#### **28.5.2.9 Conclusion**

The alternatives described above are not prudent and feasible avoidance alternatives, nor do they have the potential to be developed into such alternatives. In addition, these alternatives do not have the potential to minimize overall harm. Therefore, they are not considered further in this Section 4(f) evaluation.

### 28.5.3 5800 West Freeway Alternative – Potential Alignment Shifts

Potential avoidance alternatives (alignment shifts) were designed and evaluated for the 5800 West Freeway Alternative in each location where this alternative would result in a non-*de minimis* use of a Section 4(f) property. Alternatives were considered for the 5800 West Freeway Alternative at the following locations:

- Location 1 – Historic houses near Hunter Park (3500 South and about 6000 West)
- Location 2 – Hunter High School and Hillside Elementary School athletic fields

#### 28.5.3.1 Location 1 – Historic Houses near Hunter Park

This section discusses alignment shifts designed as avoidance alternatives for the historic houses near Hunter Park, which is located on 3500 South at about 6000 West. At Location 1, the Section 4(f) resources include Hunter Park (*de minimis* use) and 14 historic houses; 12 of which would be adversely affected by the 5800 West Freeway Alternative.<sup>5</sup> Since these Section 4(f) resources are in close proximity to each other, the alternatives are discussed together. This section includes the following topics:

- The design of the 5800 West Freeway Alternative at Location 1
- Historic context and the selective reconnaissance survey
- Description of potential alignment shifts
- Assessment of potential alignment shifts
- Potential to find replacement property for Hunter Park

#### Design of 5800 West Freeway Alternative at Location 1

The 5800 West Freeway Alternative is located within the Rocky Mountain Power high-voltage electrical transmission corridor, which ranges in width from 160 feet to 300 feet. The utility corridor divides West Valley City, and no development or only limited development is allowed in this corridor. Therefore, if the 5800 West Freeway Alternative were to share and/or be located within the utility corridor, relocations and other environmental and community impacts would be minimized. An alignment that is separated from the utility corridor would add another obstacle, which would further divide West Valley City. This

---

<sup>5</sup> Since the completion of the Draft EIS, the 5800 West Freeway Alternative has been designed in consultation with the utility companies to avoid and minimize the impacts to utilities at 3500 South. As a result, the 5800 West freeway alignment shifted to the east from what was shown in the Draft EIS. This alignment shift now adversely affects (non-*de minimis*) one additional historic resource in the area.

arrangement would result in the new freeway corridor running parallel to the utility corridor with a thin strip of land between the two, which would essentially make that strip undevelopable. For these reasons, the 5800 West Freeway Alternative was designed to be within or immediately adjacent to the utility corridor wherever possible.

### Historic Context and the Selective Reconnaissance Survey

The 5800 West Freeway Alternative would use 12 Section 4(f) historic properties, all of which are located close to Hunter Park at 3500 South and 6000 West (see [Figure 28-18](#), Impacts to Hunter Park and Section 4(f) Resources). The following historic houses would be completely used by the 5800 West Freeway Alternative:

- 5769 West 3500 South    • 5765 West 3500 South    • 5755 West 3500 South
- 5742 West 3500 South    • 5741 West 3500 South    • 5724 West 3500 South
- 5712 West 3500 South    • 3525 South 5750 West    • 3530 South 5750 West
- 3556 South 5750 West    • 3590 South 5750 West    • 3547 South 5750 West

Three of these historic properties—5741 West 3500 South, 3525 South 5750 West, and 3547 South 5750 West—are in a historic subdivision called Jonesdale. This historic subdivision was determined by reviewing maps of the area provided by West Valley City and noting that its construction was prior to 1958. The Jonesdale historic subdivision is bounded by Hunter Park on the west, 5600 West on the east, 3500 South on the north, and about 3600 South on the south.

The *Selective Reconnaissance Survey* (UDOT 2004) was conducted as part of the 3500 South Roadway Widening project for UDOT. The purpose of this survey was to document the historic structures (buildings only) in West Valley City and parts of Magna. This report states that a high number of historic houses exist along or near 3500 South in West Valley City, where all of the historic houses are located that would be affected by the 5800 West Freeway Alternative. The study area for the *Selective Reconnaissance Survey* extended from SR 201 on the north to 4100 South on the south and from Redwood Road on the east and 8400 West on the west. Note that not all historic properties within these limits were identified, only those along 3500 South and other major roads.

The *Selective Reconnaissance Survey* identified 20 historic subdivisions<sup>6</sup> as shown in [Figure 28-25](#), Historic Subdivisions in West Valley City and Magna.

<sup>6</sup> If a subdivision is noted as a historic subdivision in the *Selective Reconnaissance Survey*, this does not mean that all of the houses in the subdivision are eligible for inclusion in the NRHP.

4(f) resources (see [Figure 28-5](#), Historic Linear Features in Salt Lake County). Each of these historic linear resources generally runs east-west through the MVC study area. Also, these historic canals and railroad tracks extend beyond the limits of the MVC study area. Any avoidance alternative in the MVC study area would have a Section 4(f) use.

In addition to these linear Section 4(f) resources, there are a number of historic properties, districts, and subdivisions scattered throughout the MVC study area (see [Figure 28-25](#), Historic Subdivisions in West Valley City and Magna). For example, many homes constructed during the WWII and post-WWII eras are now over 50 years old (or approaching 50 years old) and therefore are considered historic. The widespread presence of these structures also precludes the development of a new north-south freeway that completely avoids all Section 4(f) resources.

Finally, it is conceivable that alternatives could be developed that would include extensive tunneling as a method for avoiding impacts to historic properties. However, the costs of tunneling would be exorbitant. Although tunneling might be warranted on a limited scale for historic properties that are considered highly valuable, the extreme costs of tunneling are not justifiable here, where the historic properties affected are mostly common examples of widespread property types. Therefore, design modifications involving tunneling or other similar techniques have not been developed.

#### **28.5.2.8 Other Potential Avoidance Alternatives outside the MVC Study Area**

Alignments and alternatives outside the MVC study area would not meet the project purpose and therefore were not evaluated. Specifically, alternatives outside the MVC study area would not improve mobility by reducing roadway congestion in the study area (see [Table 1.3-1](#), Measures Used To Define the Project's Purpose and Need and Develop Alternatives).

#### **28.5.2.9 Conclusion**

The alternatives described above are not prudent and feasible avoidance alternatives, nor do they have the potential to be developed into such alternatives. In addition, these alternatives do not have the potential to minimize overall harm. Therefore, they are not considered further in this Section 4(f) evaluation.

### Assessment of Alternative A at Location 1

Alternative A is not prudent as defined in 23 CFR 774.17 (feasible and prudent avoidance alternatives). Specifically, this alternative is not prudent based on factors listed in paragraph (3)(iii) of that definition for the reasons discussed below.

Alternative A would result in the situation discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, in which there is an undesirable strip of land between the 5800 West freeway alignment and the utility corridor. This alignment would create an “island” of homes and businesses between the new freeway and the utility corridor.

This alternative is not prudent because it would significantly increase the number of residential and business relocations, resulting in severe disruption to an established community. The 5800 West Freeway Alternative has been designed within or near the utility corridor to minimize impacts to the surrounding area. This section of West Valley City west of the utility corridor and Hunter Park is densely populated. An alignment west of Hunter Park and the historic houses in this location would create another barrier in West Valley City (with the utility corridor being the other barrier). One of the reasons for the design of the 5800 West Freeway Alternative is to use the utility corridor to minimize the number of north-south barriers that bisect the city (others being Interstate 215 [I-215] and Bangerter Highway).

As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the Rocky Mountain Power utility corridor. An alignment shift to the west would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the western shift of the 5800 West Freeway Alternative and would likely remain unused and undevelopable.

#### ***Alternative B – West Alignment Shift through Hunter Park Completely Avoiding the Historic Houses (Those Affected by the 5800 West Alignment)***

Alternative B is not a Section 4(f) avoidance alternative. Like the 5800 West Freeway Alternative, it also would cause Section 4(f) impacts. Therefore, it has been considered for its potential to minimize overall harm according to 23 CFR 774.3(c) compared to the 5800 West Freeway Alternative.

Alternative B is a western alignment shift that avoids the 12 historic houses that would have a Section 4(f) use by the 5800 West Freeway Alternative (see [Figure 28-27](#), 5800 West Alternative Location 1 – Alternative B). However, this avoidance alternative would adversely affect Hunter Park to a point that it would



no longer function as a park. It would shift the 5800 West freeway about 500 feet west into Hunter Park to avoid the historic properties east of the park. This shift would, for the most part, remove the freeway from the Rocky Mountain Power utility corridor.

### Assessment of Alternative B at Location 1

Alternative B would use the historic house at 5890 West 3500 South (a Section 4(f) resource); this historic house would not be affected by the proposed 5800 West Freeway Alternative (see [Figure 28-27](#), 5800 West Alternative Location 1 – Alternative B). Therefore, a western alignment shift would not completely avoid all Section 4(f) resources in this area.

In addition, Alternative B would adversely affect Hunter Park, which is itself a Section 4(f) resource and is highly valued by the local and regional communities. Hunter Park is owned and maintained by Salt Lake County Parks and Recreation. It is used by residents from West Valley City, Magna, and other locations in the county. Letters were received from both West Valley City and Salt Lake County Parks and Recreation (the agency with jurisdiction) expressing the importance of Hunter Park to the community (see Appendix 28C, Hunter Park Information and Correspondence).

- **West Valley City.** West Valley City opposes an alignment shift into the park. The City places a high value on Hunter Park and feels that it has more cultural significance to their city than the 12 historic properties used by the 5800 West Freeway Alternative. West Valley City stated in its letter that “...of critical importance in this regard is making sure that the project alignment does not materially impair the value or utility of any of the City’s irreplaceable assets, including our Hunter Park.”
- **Salt Lake County Parks and Recreation.** Salt Lake County, the jurisdictional agency over Hunter Park, stated in its letter that it “...strongly advise[s] that the alignment(s) for...the 5800 West Freeway Alternative be shifted away from Hunter Park to avoid any impacts to the park.” Further, the County stated that adverse impacts to Hunter Park “would dramatically impair the County’s ability to meet the needs of the community in providing ball fields for organized sports programs.”

In comparison, the historic homes used by the 5800 West Freeway Alternative are examples of a property type—residential structures from the WWII era—that is very common in the project area; there are hundreds of other examples of the same type of historic structure in West Valley City. Therefore, on balance, Alternative B would cause greater harm to Section 4(f) properties than the 5800

West Freeway Alternative (that is, the harm to the park outweighs the harm to the historic homes).

In addition to causing greater Section 4(f) impacts, Alternative B also causes greater community impacts than the 5800 West Freeway Alternative (23 CFR 774.3[c][1]). As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the Rocky Mountain Power utility corridor. An alignment shift to the west away from this corridor (as proposed in Alternative B) would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the western shift of the 5800 West Freeway Alternative and would likely remain unused and undevelopable.

In addition, Alternative B would adversely affect a recreation area to the south of Hunter Park that is privately owned by the Church of Jesus Christ of Latter-day Saints (LDS Church). This private recreation area contains a soccer field, a softball diamond, and a grassy area. In short, Alternative B would have a much greater negative impact on the community than the 5800 West Freeway Alternative.

For the reasons explained above, Alternative B is not an avoidance alternative. Therefore, it has been considered for its potential to minimize overall harm. Because of its greater Section 4(f) impacts and greater community impacts, Alternative B does not have the potential to minimize overall harm. Therefore, Alternative B is not considered further.

#### ***Alternative C – West Alignment Shift To Minimize Number of Uses to the Historic Houses and Minimize Use of Hunter Park***

Alternative C is not a Section 4(f) avoidance alternative. Like the 5800 West Freeway Alternative, it also would cause Section 4(f) impacts. Therefore, it has been considered for its potential to minimize overall harm according to 23 CFR 774.3(c).

Alternative C is a western alignment shift to minimize the impacts to both of the historic properties used by the 5800 West Freeway Alternative and the impacts to Hunter Park (see [Figure 28-28](#), 5800 West Alternative Location 1 – Alternative C). This alignment shift would be about 200 feet west of the proposed 5800 West alignment. Also, the interchange at 3500 South would be shifted to the south about 50 feet to avoid the historic houses on the north side of 3500 South. This west alignment shift would require relocating the Rocky Mountain Power electrical transmission lines in that area to the west over the Hunter Park baseball/softball diamonds.

### Assessment of Alternative C at Location 1

Alternative C would use and adversely affect four of the 12 historic houses at this location; another two historic properties would have no adverse effect under Section 106, which is a *de minimis* impact under Section 4(f). The historic houses on the south side of 3500 South (5769 West, 5765 West, and 5755 West) would be affected (use—not *de minimis*) as a result of the MVC interchange with this cross street. Therefore, with regard to historic properties, Alternative C would cause less harm than the 5800 West Freeway Alternative.

However, in order to reduce harm to historic properties, Alternative C would shift the location of the freeway and the utility corridor into Hunter Park without taking the entire park. It would still adversely affect three baseball diamonds (depending on the placement of power poles), result in the loss of one soccer field, and result in the loss of access and parking spaces. This impact would render Hunter Park useless because it currently hosts a number of softball/baseball tournaments in which all diamonds are used. Leaving just one ball diamond is not acceptable at Hunter Park, according to officials with jurisdiction over it. Hunter Park is owned and maintained by Salt Lake County Parks and Recreation. It is used by residents from West Valley City, Magna, and other locations in the county. Letters were received from West Valley City and Salt Lake County Parks and Recreation expressing the importance of Hunter Park to the community (see Appendix 28C, Hunter Park Information and Correspondence).

- **West Valley City.** West Valley City opposes an alignment shift into the park. The City places a high value on Hunter Park and feels that it has more cultural significance to their city than the 12 historic properties used by the 5800 West Freeway Alternative. West Valley City stated in its letter that “...of critical importance in this regard is making sure that the project alignment does not materially impair the value or utility of any of the City’s irreplaceable assets, including our Hunter Park.”
- **Salt Lake County Parks and Recreation.** Salt Lake County, the jurisdictional agency over Hunter Park, stated in its letter that it “...strongly advise[s] that the alignment(s) for...the 5800 West Freeway Alternative be shifted away from Hunter Park to avoid any impacts to the park.” Further, the County stated that adverse impacts to Hunter Park “would dramatically impair the County’s ability to meet the needs of the community in providing ball fields for organized sports programs.”

In comparison, the historic homes used by the 5800 West Freeway Alternative are examples of a property type—residential structures from the WWII era—that is very common in the project area; there are hundreds of other examples of the

same type of historic structure in West Valley City. Therefore, on balance, Alternative C would cause greater harm to Section 4(f) properties than the 5800 West Freeway Alternative (that is, the harm to the park outweighs the harm to the historic homes).

In addition to causing greater Section 4(f) impacts, Alternative C also causes greater community impacts than the 5800 West Freeway Alternative. As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the Rocky Mountain Power utility corridor. An alignment shift to the west would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the western shift of the 5800 West Freeway Alternative and would likely remain unused and undevelopable. In short, Alternative C would have a much greater negative impact on the community than the 5800 West Freeway Alternative.

For the reasons explained above, Alternative C is not an avoidance alternative. Therefore, it has been considered for its potential to minimize overall harm. Because of its greater Section 4(f) impacts and greater community impacts, Alternative C does not have the potential to minimize overall harm. Therefore, Alternative C is not considered further.

#### ***Alternative D – East Alignment Shift To Avoid Historic Houses***

Alternative D is not a Section 4(f) avoidance alternative. Like the 5800 West Freeway Alternative, it also would cause Section 4(f) impacts. Therefore, it has been considered for its potential to minimize overall harm according to 23 CFR 774.3(c).

Alternative D is an eastern alignment shift from the 5800 West Freeway Alternative. This alternative would shift the 5800 West Freeway about 600 feet east toward 5600 West to avoid the adversely affected historic houses and Hunter Park. This shift would, for the most part, remove the freeway from the Rocky Mountain Power utility corridor.

#### **Assessment of Alternative D at Location 1**

Alternative D would affect about 23 historic houses.<sup>7</sup> Therefore, the overall Section 4(f) impacts of this alignment shift are greater than the Section 4(f) impacts from the proposed 5800 West Freeway Alternative.

---

<sup>7</sup> Based on visual reconnaissance and date of structure (February 5, 2007).

In addition to causing greater Section 4(f) impacts, Alternative D also has several other drawbacks compared to the 5800 West Freeway Alternative.

***Engineering and Traffic Constraints.*** Traffic operations at the new MVC and 3500 South interchange would fail because of the interchange's close proximity to 5600 West, which is a north-south road (see [Figure 28-26](#), 5800 West Alternative Location 1 – Potential Alignment Shifts). An eastern alignment shift would not meet the requirements established by UDOT for separation of an interchange and a parallel arterial (5600 West). These requirements (State of Utah 2008, Table 7.4-1) mandate a minimum spacing of 1,320 feet between an interchange and an intersection on a parallel road.

***Increased Relocations.*** An eastern alignment shift would increase the number of residential and business relocations through this area. The 5800 West Freeway Alternative would have about 50 relocations. Alternative D would have more than 80 relocations, which would include several businesses and a strip mall.

***Community Disruption.*** As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the utility corridor. An alignment shift eastward would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the eastern shift of the 5800 West Freeway Alternative and would likely remain unused and undevelopable.

Based on all of the above considerations including engineering and traffic constraints, increased environmental impacts, and increased community disruption, Alternative D would cause greater overall harm. Therefore, it is not considered further.

#### ***Assessment of Potential Alignment Shifts at Location 1***

Based on the preceding discussion, Alternative A would avoid Section 4(f) resources but has been eliminated because it is not prudent. Alternatives B, C, and D would not avoid Section 4(f) resources and therefore were considered for their potential to minimize harm. These three alternatives have been eliminated from consideration because they would cause greater overall harm.

#### **Replacement Property for Hunter Park**

Four potential alignment shifts were considered for the historic houses east of Hunter Park that would be adversely affected by the 5800 West Freeway Alternative. Due to the importance of this park according to West Valley City and Salt Lake County Parks and Recreation, replacement property was considered as part of the avoidance and least-harm analysis. Considering

replacement of the park was consistent with the requirement to consider “reasonable mitigation” when evaluating impacts under paragraph (3)(iii) in the definition of “feasible and prudent avoidance alternative” in 23 CFR 774.17.

Replacement property for Hunter Park was evaluated to determine whether this park could be relocated if it were substantially or entirely used by the 5800 West Freeway Alternative. Theoretically, the Hunter Park area could be used for the alignment of the 5800 West Freeway Alternative while avoiding or minimizing the uses to the historic resources to the east. Hunter Park is 29 acres, including the area within the power corridor that is owned by Rocky Mountain Power. The attempt to locate another area of similar size in the community was not successful, and relocation of the park was not acceptable to Salt Lake County Parks and Recreation. The methodology for locating a potential replacement property is explained below.

**Methodology.** In order to find comparable replacement property for the relocation of Hunter Park, the following assumptions were made:

- Only areas within West Valley City boundaries were reviewed. A park outside city boundaries would be too far from the existing Hunter Park location.
- The replacement property needs to be contiguous and large enough to provide the same amenities as the existing park.
- The area must be within comparable zoning. Areas zoned for commercial, business, and industrial were not considered because these areas typically do not provide an equivalent location as the existing Hunter Park. Therefore, land north of Parkway Boulevard (2700 South) was not considered.
- Areas already used for parks or planned parks were not considered. This included areas that are considered for wetland preservation and stormwater park overlay.

Based on the above assumptions and a review of existing zoning maps and land-use plans, no site was identified for the replacement of Hunter Park. West Valley City is rapidly approaching build-out, and few large tracts of land are available for a replacement park.

### 28.5.3.2 Location 2 – Hunter High School and Hillside Elementary School Athletic Fields

This section discusses potential alignment shifts designed and evaluated for the Hunter High School and Hillside Elementary School athletic fields<sup>8</sup> at Location 2. The 5800 West Freeway Alternative would use about 0.4 acre of the Hunter High School athletic fields and would use about 1.4 acres of the Hillside Elementary School athletic fields. Since these Section 4(f) resources are in close proximity to each other, potential alignment shifts are discussed together. This section includes the following topics:

- The design of the 5800 West Freeway Alternative at Location 2
- Description of potential alignment shifts
- Assessment of potential alignment shifts

#### Design of 5800 West Freeway Alternative at Location 2

Near Hunter High School and Hillside Elementary School, the 5800 West Freeway Alternative is located within a portion of the Rocky Mountain Power high-voltage electrical transmission corridor, which ranges in width from 160 feet to 300 feet. The utility corridor divides West Valley City, and no development or only limited development is allowed in this corridor. Therefore, if the 5800 West Freeway Alternative were to share and/or be located within the utility corridor, relocations and other environmental and community impacts would be minimized. An alignment that is separated from the utility corridor would add another obstacle, which would further divide West Valley City. This arrangement would result in the new freeway corridor running parallel to the utility corridor with a thin strip of land between the two, which would essentially make that strip undevelopable. For these reasons, the 5800 West Freeway Alternative was designed to be within or immediately adjacent to the utility corridor wherever possible.

#### Potential Alignment Shifts at Location 2

This section discusses the potential alignment shifts that were designed and evaluated at Location 2 for the 5800 West Freeway Alternative. Two potential alignment shifts were considered: Alternative A is a western alignment shift and Alternative B is an eastern alignment shift. The alignment shifts are shown in [Figure 28-29](#), 5800 West Alternative Location 2 – Potential Alignment Shifts.

---

<sup>8</sup> In the Draft EIS, the use of these athletic fields was *de minimis*. Since the completion of the Draft EIS, the MVC team has determined that the uses at both the Hunter High School and Hillside Elementary School athletic fields should be changed to non-*de minimis* uses. Therefore, avoidance alternatives have been developed for these Section 4(f) resources.

### ***Alternative A – West Alignment Shift***

Alternative A would avoid Section 4(f) resources altogether. Therefore, it was evaluated to determine whether it is a “prudent and feasible avoidance alternative” as defined in 23 CFR 774.117.

Alternative A is an alignment shift that completely avoids using the Hunter High School and Hillside Elementary School athletic fields (see [Figure 28-30](#), 5800 West Alternative Location 2 – Alternative A). This shift would be about 1,400 feet west of the proposed 5800 West Freeway alignment and would begin near 3500 South on the north end and extend to about 5000 South (near West Ridge Golf Course). It would be about 2.5 miles long.

### **Assessment of Alternative A at Location 2**

Alternative A, a western alignment shift, is not prudent as defined in 23 CFR 774.17 (feasible and prudent avoidance alternatives). Specifically, this alternative is not prudent based on factors listed in paragraph (3)(iii) of that definition for the reasons discussed below.

***Increased Relocations.*** An increase in impacts would occur with this alignment shift. A west alignment shift would require about 330 residential relocations, three commercial/business relocations, and the relocation of a church. This is more than 200 additional relocations over the proposed 5800 West Freeway Alternative along the same section (between 3500 South and 5000 South).

***Community Disruption.*** As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the Rocky Mountain Power utility corridor. An alignment shift to the west would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the western shift of the 5800 West Freeway Alternative and would likely remain undevelopable.

### ***Alternative B – East Alignment Shift To Avoid the Athletic Fields***

Alternative B would avoid Section 4(f) resources altogether. Therefore, it was evaluated to determine whether it is a “prudent and feasible avoidance alternative” as defined in 23 CFR 774.117.

Alternative B is an eastern alignment shift from the 5800 West Freeway Alternative. This alternative would require that 5800 West be shifted to the east about 1,000 feet to avoid the Hunter High School athletic fields. This alternative would begin near 3500 South on the north end and extend to about 5000 South (near West Ridge Golf Course). It would be about 2.5 miles long.



### Assessment of Alternative B at Location 2

Alternative B is not prudent as defined in 23 CFR 774.17 (feasible and prudent avoidance alternatives). Specifically, this alternative is not feasible based on factors listed in paragraph (2) and is not prudent based on factors listed in paragraph (3)(iii) of that definition for the reasons discussed below.

***Engineering and Traffic Constraints.*** Traffic operations at the new Mountain View Corridor and 3500 South interchange would fail because of the interchange's close proximity to 5600 West, which is a north-south road. An eastern alignment shift would not meet the requirements established by UDOT for separation of an interchange and a parallel arterial (5600 West). These requirements (State of Utah 2008, Table 7.4-1) mandate a minimum spacing of 1,320 feet between an interchange and an intersection on a parallel road.

***Increased Relocations.*** An eastern alignment shift would increase the number of residential and business relocations through this area. The 5800 West Freeway Alternative would require about 60 residential relocations; this avoidance alternative would require more than 80 residential relocations. Also, an eastern alignment shift would require the relocation of Hunter High School and several businesses.

***Community Disruption.*** As discussed in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, the 5800 West Freeway Alternative was designed to use the Rocky Mountain Power utility corridor. An alignment shift eastward would add another barrier bisecting West Valley City. A small sliver of property would remain between the utility corridor and the eastern shift of the 5800 West Freeway Alternative and would likely remain undevelopable.

Because of engineering and traffic constraints, increased environmental impacts, and increased community disruption, an eastern alignment shift of the 5800 West Freeway Alternative is not considered feasible and prudent at this location.

### Assessment of Potential Alignment Shifts at Location 2

This section summarizes the preceding discussion of the prudence of the two potential alignment shifts at Location 2. Alignment shifts in this area are not prudent for several reasons.

- The western alignment shift (Alternative A) to avoid impacts to the athletic fields would require more than 333 relocations (329 residential, three commercial/business, and one church), an increase of 202 over the 5800 West Freeway Alternative. The 5800 West Freeway Alternative would avoid these impacts because it would run adjacent to or within the power corridor, thereby minimizing impacts to the community and surrounding areas.

- The eastern alignment shift (Alternative B) would shift the freeway away from the Rocky Mountain Power utility corridor and therefore would not optimize the space available in the corridor. The footprint for the 5800 West freeway and that of the utility corridor would not be shared. As discussed, the use the Rocky Mountain Power corridor for the 5800 West Freeway Alternative reduces impacts. Shifting the MVC in this location outside the utility corridor would cause severe community disruption (23 CFR 774.17). West Valley City officials are strongly concerned about creating another barrier in the city similar to the power corridor.

#### 28.5.4 7200 West Freeway Alternative – Potential Alignment Shifts

The 7200 West Freeway Alternative would use six historic resources: 3080 South 7200 West, 3372 South 7200 West, 3551 South 7200 West, 3641 South 7200 West, 3717 South 7200 West, and the Denver and Rio Grande Western (D&RGW) Garfield Branch Railroad (42SL333). These uses are shown in [Figure 28-19](#), Impacts to Historic Properties for 7200 West in Salt Lake County.

The 7200 West Freeway Alternative has changed since the completion of the Draft EIS. Specifically, this alternative was shifted to the north near 4100 South to avoid sensitive areas on the ATK property. This alignment shift adversely affects the D&RGW Garfield Branch Railroad.

This section evaluates potential alignment shifts at three locations along the corridor where the use of the six Section 4(f) resources from the 7200 West Freeway Alternative would occur. The three locations are:

- Location 1 – Between Parkway Boulevard (about 2700 South) and 3600 South for the use of historic houses at 3080 South 7200 West and 3372 South 7200 West (see [Figure 28-31](#), 7200 West Alternative Location 1 – Potential Alignment Shifts, and [Figure 28-32](#), 7200 West Alternative Location 1 – Alternative B).
- Location 2 – Between 3300 South and 4100 South for the use of historic houses at 3351 South 7200 West, 3641 South 7200 West, and 3717 South 7200 West across the street from the LDS Bishop’s Storehouse at about 3600 South 7200 West (see [Figure 28-33](#), 7200 West Alternative Location 2 – Potential Alignment Shifts, and [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A).
- Location 3 – This area is where the 7200 West Freeway Alternative turns to connect with the 5800 West Freeway Alternative near 4100 South. This alternative requires the relocation of about 4,200 linear feet of the D&RGW Garfield Branch railroad. The 7200 West Freeway Alternative

at this location was designed to avoid the ATK property (see [Figure 28-35](#), 7200 West Alternative Location 3 – Potential Alignment Shifts, and [Figure 28-36](#), 7200 West Alternative Location 3 – Alternative A).

#### **28.5.4.1 Location 1 – 3080 South 7200 West and 3372 South 7200 West**

This section discusses an eastern alignment shift that was designed and evaluated for the historic houses at Location 1. These houses are 3080 South, 3075 South, 3109 South, and 3372 South on 7200 West. This section includes the following topics:

- The design of the 7200 West Freeway Alternative at Location 1
- Description of potential alignment shifts
- Assessment of potential alignment shifts

#### **Design of 7200 West Freeway Alternative at Location 1**

At Location 1, the 7200 West Freeway Alternative uses a couplet system along its frontage road with slip ramps for access to and from the 7200 West freeway. The couplet system includes a northbound frontage road on the east side of the 7200 West Freeway and a southbound frontage road on the west side. These ramps and couplet system are required to provide access to residences and businesses along 7200 West and to reduce the overall footprint of the freeway.

Between SR 201 and 4100 South, the existing 7200 West roadway is the boundary separating West Valley City from Magna Township. The alignment for the 7200 West Freeway Alternative has been designed to use this geographic boundary to avoid creating another obstacle for residents of West Valley City and Magna. Shifting an alignment away from 7200 West is not prudent since this would isolate a small “island” of residents between the new freeway and the existing 7200 West, thus isolating the residents of this “island” from their respective city. If the freeway were shifted off of the existing 7200 West roadway, the couplet system could not be used. This would require a minimum spacing of 1,320 feet between 7200 West and the realigned freeway to allow proper traffic operations in accordance with UDOT’s access-management standards (State of Utah 2008, Table 7.4-1). As a result, only minor alignment shifts that would make the most of the existing 7200 West roadway were analyzed.

#### **Potential Alignment Shifts**

At Location 1, two potential alignment shifts were considered: an alignment shift to the west and an alignment shift to the east of the adversely affected historic

resources (see [Figure 28-31](#), 7200 West Alternative Location 1 – Potential Alignment Shifts). There are four historic properties close to each other; two are on the east side of the existing 7200 West roadway and the other two are on the west side. The proposed 7200 West Freeway Alternative would use the historic houses at 3080 South 7200 West and 3372 South 7200 West, both of which are on the west side of the existing 7200 West roadway, thus avoiding the historic houses on the east side of 7200 West. An alignment along either the east or west side of the existing 7200 West roadway would require two Section 4(f) uses.

#### ***Alternative A – West Alignment Shift***

Alternative A is not a Section 4(f) avoidance alternative. Like the 7200 West Freeway Alternative, it also would cause Section 4(f) impacts. Therefore, it has been considered for its potential to minimize overall harm according to 23 CFR 774.3(c).

An alignment shift west would require the 7200 West freeway to be constructed about 1,300 feet west of its location due to the proximity of the existing 7200 West roadway. In accordance with UDOT requirements (State of Utah 2008, Table 7.4-1), there needs to be a minimum of 1,320 feet between the freeway interchange for the MVC and the 7200 West/3100 South intersection. In addition, a western alignment shift would require the reconfiguration of the SR 201/MVC interchange, which would be complicated due to the existing interchange at SR 201 and 7200 West.

#### **Assessment of Alternative A at Location 1**

Alternative A would use a school athletic field located about 1,500 feet west of 7200 West. This alternative does not have the least overall harm compared to the 7200 West Freeway Alternative. This finding is based on the factors listed in 23 CFR 774.3(c) and discussed below.

***Increased Relocations.*** A western alignment shift would increase the number of residential and business relocations through this area. The proposed location of the 7200 West Freeway Alternative would require 81 relocations between 2700 South (Parkway Boulevard) and 3600 South (just south of 3500 South), while a west alignment shift would require more than 120 relocations.

#### ***Alternative B – East Alignment Shift***

Alternative B is not a Section 4(f) avoidance alternative. Like the 7200 West Freeway Alternative, it also would cause Section 4(f) impacts. Therefore, it has been considered for its potential to minimize overall harm according to 23 CFR 774.3(c).

The analysis considered an eastern shift between Parkway Boulevard on the north (about 2700 South) and 3600 South (about 800 feet south of 3500 South), a distance of about 1 mile. The 7200 West freeway would need to be shifted about 800 feet to the east of its location, as shown in [Figure 28-31](#), 7200 West Alternative Location 1 – Potential Alignment Shifts).

### **Assessment of Alternative B at Location 1**

This alternative would use the historic houses at 3075 South 7200 West and 3109 South 7200 West. This alternative does not have the least overall harm compared to the 7200 West Freeway Alternative. This finding is based on the factors listed in 23 CFR 774.3(c) and discussed below.

**Increased Relocations.** The proposed 7200 West Freeway Alternative would require 17 fewer relocations over the same 1-mile length than an alignment shift to the east side of the existing 7200 West roadway. The proposed location of the 7200 West Freeway Alternative would require 81 relocations between 2700 South (Parkway Boulevard) and 3600 South (just south of the 3500 South), while a freeway alignment on the east side of 7200 West would require 98 relocations (see [Figure 28-32](#), 7200 West Alternative Location 1 – Alternative B).

In summary, an alignment shift to the east to completely avoid affecting the historic houses at 3080 South 7200 West and 3372 South 7200 West would not have the least overall harm compared to the 7200 West Freeway Alternative in this location. An alignment on the east side of 7200 West at this location would use two other historic resources/Section 4(f) resources (3075 South 7200 West and 3109 South 7200 West) and would require 17 more relocations along a 1-mile stretch of 7200 West (see [Figure 28-32](#), 7200 West Alternative Location 1 – Alternative B).

#### **28.5.4.2 Location 2 – 3551 South 7200 West, 3641 South 7200 West, and 3717 South 7200 West**

This section discusses alignment shifts that were designed and evaluated for the historic houses at Location 2. The 7200 West Freeway Alternative would use three historic houses: 3551 South 7200 West, 3641 South 7200 West, and 3717 South 7200 West. These three historic houses are on the east side of 7200 West and are within about 1,300 feet of each other. The analysis was conducted between 3300 South and 4100 South, a distance of about 1.25 miles. This section includes the following topics:

- The design of the 7200 West Freeway Alternative at Location 2
- Historic context and the Selective Reconnaissance Survey
- Description of potential alignment shifts
- Assessment of potential alignment shifts

## Design of 7200 West Freeway Alternative at Location 2

At Location 2, the 7200 West Freeway Alternative uses a couplet system along its frontage road with slip ramps for access to and from the 7200 West freeway. The couplet system includes a northbound frontage road on the east side of the 7200 West freeway and a southbound frontage road on the west side. These ramps and couplet system are required to provide access to residences and businesses along 7200 West and to reduce the overall footprint of the freeway.

Between SR 201 and 4100 South, the existing 7200 West roadway is the boundary separating West Valley City from Magna Township. The alignment for the 7200 West Freeway Alternative has been designed to use this geographic boundary to avoid creating another obstacle for residents of West Valley City and Magna. Shifting an alignment away from 7200 West is not prudent since this would isolate a small “island” of residents between the new freeway and the existing 7200 West, thus isolating the residents of this “island” from their respective city. If the freeway were shifted off of the existing 7200 West roadway, the couplet system could not be used. This would require a minimum spacing of 1,320 feet between 7200 West and the realigned freeway to allow proper traffic operations in accordance with UDOT’s access-management standards (State of Utah 2008, Table 7.4-1). As a result, only minor alignment shifts that would make the most of the existing 7200 West roadway were analyzed.

## Historic Context and the Selective Reconnaissance Survey

At Location 2, the 7200 West Freeway Alternative would use three Section 4(f) historic properties (3551 South 7200 West, 3641 South 7200 West, and 3717 South 7200 West), all of which are located across 7200 West from the LDS Bishop’s Storehouse (see [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A). The *Selective Reconnaissance Survey* was conducted as part of the 3500 South Roadway Widening project for UDOT. The purpose of this survey was to document the historic structures (buildings only) in West Valley City and eastern parts of Magna. This report states that there is a large number of historic houses along or near 3500 South in West Valley City close to the three historic houses used at this location by the 7200 West Freeway Alternative. The study area for the *Selective Reconnaissance Survey* extended from SR 201 on the north to 4100 South on the south and between Redwood Road on the east and 8400 West on the west. Note that not all historic properties within these limits were identified, only those along 3500 South and other major roads including 7200 West.

This study identified 20 historic subdivisions, which are shown in [Figure 28-25](#), Historic Subdivisions in West Valley City and Magna. These subdivisions have 733 individual potential historic properties. (The subdivisions were constructed in or before 1958; individual houses in the subdivisions were not documented.) Of these 733 properties, 379 are considered eligible for the NRHP, which would make them subject to Section 4(f). A total of 199 historic houses (of the 379) are considered WWII-Era or Post War-type structures, which is almost 53% of the eligible historic buildings in the *Selective Reconnaissance Survey* study area. The vast majority of historic houses in West Valley City and Magna are considered WWII-type structures. Two of the three historic houses (3551 South 7200 West, a WWII-Era style, and 3641 South 7200 West, a Ranch/Rambler built in 1955) are considered WWII-Era or Post War-type structures. There are a large number of these types of historic houses in the area, and they have not been singled out as an important structure that would be important and necessary to preserve since there are a large number of houses of similar era and type in the area.

### Potential Alignment Shifts

This section discusses potential alignment shifts designed and evaluated at Location 2 for the 7200 West Freeway Alternative. Two alignment shifts were considered: one to the east of the historic properties and the other to the west (through the LDS Bishop's Storehouse). These are shown in [Figure 28-33](#), 7200 West Alternative Location 2 – Potential Alignment Shifts.

#### *Alternative A – East Alignment Shift behind the Historic Houses*

An eastern alignment shift behind the historic houses was considered. This would require the 7200 West freeway to be shifted about 500 feet from where it is shown now. This alternative would start at about 3300 South and continue to about 4100 South, a distance of about 1.25 miles.

#### Assessment of Alternative A at Location 2

Alternative A is not considered prudent according to the definition of “feasible and prudent avoidance alternative” in 23 CFR 774.17. Specifically, this alternative is not prudent based on factors listed in paragraph (3)(iii) of that definition for the reasons discussed below.

**Increased Relocations.** An alignment behind or to the east of the historic homes at Location 2 would have wide-ranging environmental impacts. The realigned freeway would be located behind or to the east of these historic houses, which face west onto 7200 West. The preferred location of the 7200 West Freeway



Alternative would require 153 relocations between 3300 South and 4100 South, while Alternative A would require 190 relocations.

**Community Disruption.** An eastern alignment would increase community disruption by leaving a narrow “island” of homes between the 7200 West freeway alignment and the 7200 West arterial. These homes would be located in West Valley City but would be cut off from the city itself by the freeway. For this reason, only a minor alignment shift to the west was analyzed for avoiding historic homes. See the section titled Design of 7200 West Freeway Alternative at Location 2 on page 28-90 for a discussion of the importance of the 7200 West Freeway Alternative using the existing 7200 West roadway in order to minimize environmental impacts.

#### ***Alternative B – West Alignment Shift through the LDS Bishop’s Storehouse***

An alignment was considered that would affect the LDS Bishop’s Storehouse (located directly west of the historic houses) while avoiding the Section 4(f) resources. This alternative is shown in [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A. This alternative includes a western shift beginning at about 3300 South and continuing southward to 4100 South, a distance of about 1.25 miles.

#### **Assessment of Alternative B at Location 2**

Alternative B is not considered prudent according to the definition of “feasible and prudent avoidance alternative” found in 23 CFR 774.17. Specifically, this alternative is not prudent based on factors listed in paragraph (3)(iii) of that definition for the reasons discussed below.

**Increased Relocations.** In accordance with the feasible and prudent analysis in 23 CFR 774.17, this alternative (shift to the western side of the existing 7200 West roadway) was analyzed but is considered not prudent. The proposed 7200 West Freeway Alternative would require 17 fewer relocations than an alignment shift to the west side of the existing 7200 West roadway. The preferred location of the 7200 West Freeway Alternative would require 153 relocations between 3300 South and 4100 South, while a freeway alignment on the west side of 7200 West (Alternative B) would require 170 relocations (see [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A).

**Community Impacts.** Alternative B would require the relocation of the Magna LDS Bishop’s Storehouse.<sup>9</sup> The 7200 West Freeway Alternative in this location has been shifted to the east side of the existing 7200 West roadway, in part, to

---

<sup>9</sup> The Magna LDS Bishop’s Storehouse is also referred to as the Bishop’s Storehouse throughout this EIS.



avoid adversely affecting the LDS Bishop's Storehouse and its services and amenities. The Magna LDS Bishop's Storehouse is located on a parcel about 10 acres in size (see [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A) and provides many different services to the low-income and other individuals in need of assistance. The Bishop's Storehouse is owned by the LDS Church and is available to all residents in the area, regardless of religious affiliation. The Magna Bishop's Storehouse includes a 30,000-square-foot building that provides the following services:

- **Grocery and Clothing Store.** This store includes basic food items and clothing. These stores are not open to just anyone; individuals must receive a referral from their bishop (LDS leader of the local congregation). However, all items are free, and no money is exchanged.
- **Home Storage Center and Dry-Pack Cannery.** Located within the Bishop's Storehouse is the home storage center and dry-pack cannery. Individuals can use this facility to dry-pack food items for storage and learn how to be self-sufficient.
- **Five Grain Silos.** These grain silos are used to store wheat, corn, and other grains for later use. The silos are located north of the 30,000-square-foot building. Grain is brought from the many LDS-owned and -operated farms in the valley and neighboring counties.
- **LDS Employment Resource Services.** Also located within the Bishop's Storehouse is an office for LDS Employment Resource Services. In this office, unemployed individuals are provided with counseling and other tools needed to help them find employment. Job referrals are also listed with this office, and applicants receive assistance in finding a job.

In general, the storehouse provides necessities such as food, clothing, and employment assistance for low-income families and others in need. The storehouse stocks basic food and essential household items, which are produced largely from LDS Church agricultural properties, canneries, and light manufacturing operations. All work is performed by volunteers and recipients and is largely independent of the commercial economy. The contribution of time, talents, and resources of the LDS Church membership from various locations sustains the storehouse (LDS Church, 2006). The LDS Bishop's Storehouse is an important facility for the low-income and others in need in this area of Salt Lake County.

Alternative B would not affect the historic houses at 3551 South 7200 West, 3641 South 7200 West, and 3717 South 7200 West (see [Figure 28-34](#), 7200 West Alternative Location 2 – Alternative A) but would require the relocation of the

Magna LDS Bishop's Storehouse and its associated amenities (employment resource services, home storage center and dry-pack cannery, five grain silos, grocery and clothing store, and second-hand store). Since these services are related to each other to better serve those in need, these amenities are all located within the 30,000-square-foot building. Alternative B would directly displace and adversely affect the LDS Bishop's Storehouse and other businesses directly north of the storehouse.

In summary, Alternative B is a western alignment shift that would require the relocation of the LDS Bishop's Storehouse and would avoid the use of the three Section 4(f) resources in Location 2. However, Alternative B is not a prudent alternative for avoiding these historic structures. It would require 17 more relocations along a 1.25-mile stretch of the 7200 West Freeway Alternative. In addition, Alternative B would adversely affect the LDS Bishop's Storehouse and its associated amenities. The LDS Bishop's Storehouse supports the low-income and minority populations of the area with necessities including food, clothing, and assistance with employment. Finally, the types of historic houses used by the proposed 7200 West Freeway Alternative are found in large numbers in West Valley City and Magna. This is supported by a *Selective Reconnaissance Survey*, which found that over 50% of the historic houses (older than 50 years of age) are WWII-Era or Post War-type structures. Based on all of these considerations, Alternative B is not a prudent and feasible avoidance alternative at Location 2 and therefore is not considered further.

#### **28.5.4.3 Location 3 – D&RGW Garfield Branch Railroad**

The 7200 West Freeway Alternative would use about 4,200 feet of the historic D&RGW Garfield Branch railroad. The 7200 West Freeway would require the railroad to be relocated north of its existing alignment. This section includes the following topics:

- The design of the 7200 West Freeway Alternative at Location 3
- Description of potential alignment shifts
- Assessment of potential alignment shifts

#### **Design of 7200 West Freeway Alternative at Location 3**

At this location, the 7200 West Freeway Alternative was designed to not encroach on ATK property and its safety zone. These railroad tracks are linear and run generally east-west through this area of the Salt Lake Valley. Any avoidance alternative would require crossing these tracks.

## Potential Alignment Shifts

Two potential alignment shifts were designed and evaluated that minimize the use of this Section 4(f) resource. The two alternatives are an eastern alignment shift (Avoidance Alternative A) and a western alignment shift (Avoidance Alternative B); these are shown in [Figure 28-35](#), 7200 West Alternative Location 3 – Potential Alignment Shifts.

### *Alternative A – East Alignment Shift*

An alternative was designed and evaluated that shifted the 7200 West Freeway Alternative to the east about 600 feet (see [Figure 28-36](#), 7200 West Alternative Location 3 – Alternative A). This alternative extends from about 3500 South on the north to about 4500 South on the south where it would tie back into the 7200 West Freeway Alternative.

### **Assessment of Alternative A at Location 3**

This alternative is not considered prudent according to the definition of “no feasible and prudent avoidance alternative” in 23 CFR 774.17. Specifically, this alternative is not prudent based on the factors listed in paragraph (3)(iii) of that definition, principally because of increased relocations.

**Increased Relocations.** This alternative would require about 150 additional residential relocations over the 7200 West Freeway Alternative (between 3500 South and 4500 South, the limits of this alternative). In addition, this alternative would require the relocation of one LDS church. Because it would cause severe social impacts and community disruption, this alternative is not prudent and feasible avoidance alternative at Location 3.

### *Alternative B – West Alignment Shift*

The alignment that is shown in the Draft EIS for the 7200 West Freeway Alternative (see [Figure 28-36](#), 7200 West Alternative Location 3 – Alternative A) also was considered as a potential alternative for avoiding impacts to the three historic houses at Location 2. This “shift” would be, in essence, a return to the alignment shown in the Draft EIS for this alternative. This alignment was located through the northwest corner of the ATK property. Under this alternative, the D&RGW Garfield Branch Railroad would receive a finding of no adverse effect for Section 106, which would result in a finding of *de minimis* use for Section 4(f).

### Assessment of Alternative B at Location 3

This alternative is not considered prudent according to the definition of “feasible and prudent avoidance alternative” in 23 CFR 774.17. Specifically, this alternative is not prudent based on the factors listed in paragraphs (3)(iii) and (3)(iv) of that definition for the reasons discussed below.

This alternative would require the relocation of buildings that contain solid rocket fuel and other very sensitive buildings on the ATK property. The cost of relocating these facilities would be at least \$12 million and could be substantially higher. In a letter, ATK states they have “capability that we are not using and do not have an immediate need for replacement (600-gallon mix/cast facilities). The timing and replacement of these facilities is dependent upon future business volume. Because of this, the replacement costs for these facilities were not included in this report. ATK will need to perform an additional evaluation to determine whether a payment for loss of use of these building would be acceptable versus replacement.”

In addition, the relocation would be disruptive to ongoing work at the ATK facility, and obtaining approval for this relocation could be time-consuming (see Section 2.1.7.4, Additional Changes to the Alternatives between the Draft EIS and Final EIS). As discussed in Section 2.1.7.4, the realignment out of the ATK property minimizes impacts to other businesses in the area including Hexel Corporation and Frito-Lay.

#### 28.5.5 Conclusion

FHWA has concluded that, in accordance with 23 CFR 774.3(a)(1), there are no feasible and prudent alternatives that would completely avoid Section 4(f) properties in Salt Lake County. In addition, FHWA has reviewed each specific location where a Section 4(f) use would occur along the 5800 West Freeway and the 7200 West Freeway, and has determined—at each individual location—that there are no prudent and feasible alternatives that would avoid the Section 4(f) properties at that location. Therefore, an analysis was conducted to compare the two Salt Lake County alternatives (5800 West Freeway Alternative and 7200 West Freeway Alternative) and determine which of them would cause the least overall harm. This least-harm analysis is presented in the following section.

## 28.5.6 Comparison of the 5800 West Freeway Alternative and the 7200 West Freeway Alternative

As described in Section 28.5.2, Salt Lake County – No-Action and Location/Mode Alternatives, FHWA has re-examined previously eliminated location and modal alternatives to determine whether any of those alternatives (or variations of those alternatives) could be considered a prudent and feasible avoidance alternative. In addition, FHWA considered the possibility of developing entirely new alternatives inside or outside the study area that completely avoid Section 4(f) resources. This analysis concluded that there are no prudent and feasible alternatives to the 5800 West Freeway and 7200 West Freeway Alternatives that completely avoid all Section 4(f) resources.

As described in Section 28.5.3, 5800 West Freeway Alternative – Potential Alignment Shifts, and Section 28.5.4, 7200 West Freeway Alternative – Potential Alignment Shifts, FHWA then reviewed each of the locations where Section 4(f) uses are proposed along the 5800 West Freeway and 7200 West Freeway Alternatives. At each of those locations, FHWA considered a range of potential alignment shifts, again with the goal of avoiding the Section 4(f) use entirely. At each location, FHWA also considered alternatives that did not entirely avoid Section 4(f) resources but had the potential to cause less harm. This analysis ensured that each of the principal alternatives in Salt Lake County—the 5800 West Freeway Alternative and the 7200 West Freeway Alternative—includes the appropriate avoidance and minimization measures.

As a final step in the Section 4(f) alternatives analysis, this section compares the 5800 West Freeway Alternative and 7200 West Freeway Alternative to one another to determine which alternative results in the least overall harm in light of the statute's preservation purpose (23 CFR 774.3[c][1]). This section provides the results of this overall comparison of the two main roadway alternatives in Salt Lake County. The analysis concludes that the 5800 West Freeway Alternative would cause less overall harm than the 7200 West Freeway Alternative.

For further information on the methodology used for conducting the least-overall-harm analysis, see Section 28.5.1, Methodology for Avoidance and Least-Harm Analyses.

### 28.5.6.1 Summary of Section 4(f) Impacts for the 5800 West Freeway and 7200 West Freeway Alternatives

In terms of the impacts from the 5800 West Freeway and 7200 West Freeway Alternatives on Section 4(f) resources, the 5800 West Freeway Alternative would use 12 historic resources and two parks (Hunter High School and Hillside

Elementary School athletic fields), while the 7200 West Freeway Alternative would use six historic resources and no parks. Table 28.5-1 summarizes the Section 4(f) uses for both Salt Lake County freeway alternatives.

**Table 28.5-1. Total Number of Section 4(f) Uses from the Salt Lake County Freeway Alternatives**

Section 4(f) Use	Alternative	
	5800 West Freeway	7200 West Freeway
Historic properties (not <i>de minimis</i> )	12	6 <sup>a</sup>
WWII-Era or Post-WWII types	8	4
Parks/recreation areas (not <i>de minimis</i> )	2	0
Parks/recreation areas ( <i>de minimis</i> /joint use) <sup>b</sup>	4	3
Total use (not including <i>de minimis</i> )	14	6

<sup>a</sup> As discussed, a western alignment shift (Alternative B) for the 7200 West Freeway Alternative would avoid affecting three of these six historic properties but would require the relocation of the Magna LDS Bishop's Storehouse. Therefore, if this alternative were selected, the 7200 West Freeway Alternative would have only three non-*de minimis* Section 4(f) uses. After consideration of the other environmental impacts (such as wetlands and relocations) and other factors, the 5800 West Freeway Alternative would remain as the Preferred Alternative in Salt Lake County.

<sup>b</sup> *De minimis* uses for both alternatives include the Lee Kay Center for Hunter Education, West Ridge Golf Course, and Western Springs Park (joint use). In addition, the 5800 West Freeway Alternative would have a *de minimis* use of Hunter Park.

The qualitative impacts were considered for each alternative. Chapter 17, Historic, Archaeological, and Paleontological Resources, describes the different SHPO ratings.

- SHPO A-rated historic buildings are those that retain integrity; are an excellent example of a style or type; are unaltered or have only minor alterations or additions; or are individually eligible for the NRHP under Criterion C.
- SHPO B-rated historic buildings are those that were built within the historic period and retain integrity; are a good example of a style or type, but are not as well-preserved or well-executed as A buildings; have more substantial alterations or additions than A buildings, though the overall integrity is retained; or are eligible for the NRHP as part of a potential historic district or primarily for historical, rather than architectural, reasons.

The 5800 West Freeway Alternative uses four SHPO A-rated buildings and eight SHPO B-rated buildings. The 7200 West Freeway Alternative uses one SHPO A-rated building, four SHPO B-rated historic buildings, and one historic railroad grade. The majority of historic houses in West Valley City and Magna are

considered WWII-Era or Post-War styles. For the 5800 West Freeway Alternative, eight of the 12 impacts to the historic houses are this style of structure; for the 7200 West Freeway Alternative, four of the six impacts to historic houses are this type of structure.

The 5800 West Freeway Alternative would use two athletic fields that are associated with public schools: Hunter High School and Hillside Elementary School. The 7200 West Freeway Alternative would not use any publicly owned parks or recreation areas (except for *de minimis* impacts).

#### **28.5.6.2 Least-Overall-Harm Analysis for the 5800 West Freeway and 7200 West Freeway Alternatives**

This section discusses and compares the Salt Lake County freeway alternatives for each of the listed conditions in 23 CFR 774.3(2)(c). This regulation states, “If the analysis in paragraph (a)(1) of this section concludes that there is no feasible or prudent avoidance alternative, then the [FHWA] may approve only the alternative that:

- (1) Causes the least overall harm in light of the statute’s preservation purpose. The least overall harm is determined by balancing the following factors:
  - (i) The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
  - (ii) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
  - (iii) The relative significance of each Section 4(f) property;
  - (iv) The views of the official(s) with jurisdiction over each Section 4(f) property;
  - (v) The degree to which each alternative meets the purpose and need for the project;
  - (vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
  - (vii) Substantial differences in costs among alternatives.

## **Ability To Mitigate Adverse Impacts to Each Section 4(f) Property (23 CFR 774.3[c][i])**

### ***Historic Resources***

For adverse impacts to historic resources, mitigation would be the same for both of the Salt Lake County freeway alternatives. FHWA and UDOT have entered into a Section 106 Programmatic Agreement with the Utah SHPO. The Programmatic Agreement establishes standard treatments for mitigating adverse effects on historic properties and a process for further consultation during the implementation of the project. For example, it requires documentation of adversely affected historic architectural resources through the completion of an Intensive-Level Survey. The Programmatic Agreement is included in Appendix 17B, Cultural Resources Correspondence.

An Intensive-Level Survey will be completed for the adversely affected historic architectural properties. The 5800 West and 7200 West Freeway Alternatives are similar in terms of their ability to mitigate the impacts to historic properties.

The Intensive-Level Survey includes the following elements:

- Photographs that show such attributes as the interior, exterior, and streetscape. This will include an adequate number of professional-quality, black-and-white photographs.
- Research material including a copy and a negative of the legal historic tax card (if available).
- All materials will be placed on file with the Division of State History, Historic Preservation Office.

Consultation with the Certified Local Government of West Valley City and the Magna Township has resulted in no desire for the conservation of the historic homes affected by either Salt Lake County alternative. This is documented in Section 17.2.1.2, Consultation.

For the D&RGW Garfield Branch Railroad, mitigation includes the reconstruction of the tracks and a bridge. These tracks could continue to be used.

### ***Publicly Owned Parks and Recreation Areas***

The 5800 West Freeway Alternative would use the Hunter High School and Hillside Elementary School athletic fields, which are considered Section 4(f) resources. The MVC team has met with the Granite School District, which is the owner of these athletic fields, to discuss the 5800 West Freeway Alternative and its impacts to these fields.



The use at Hunter High School athletic field would be along its western border and would affect about 0.4 acre of the soccer field. Also, the Rocky Mountain Power utility corridor will be located over the soccer field. Currently, the soccer field is oriented with its goals at the west and east ends. Mitigation for the impacts to the soccer field would include realigning it so the goals are oriented to the north and south; the soccer field would function as it does today (see [Figure 28-21](#), Hunter High School and Hillside Elementary School Impacts).

The use at Hillside Elementary School athletic field would be along its eastern border. The 5800 West Freeway Alternative would require about 1.4 acres. No mitigation has been established for these athletic fields. However, an unused stormwater detention basin is located in the northeast corner of the athletic field (see [Figure 28-13](#), Hunter High School and Hillside Elementary School); the majority of this unused detention basin would be affected by the 5800 West Freeway Alternative. Mitigation could include converting the approximately 0.11 acre that would remain of the unused detention basin for additional area for the Hillside Elementary School athletic field.

### ***Conclusion***

For historic resources, the ability to mitigate the adverse effects would be the same for both the 5800 West Freeway and 7200 West Freeway Alternatives. For the parks and recreation areas, the 5800 West Freeway Alternative would include measures to mitigate the adverse effects for the Hillside Elementary School and Hunter High School athletic fields as discussed above. There are no impacts to recreation resources from the 7200 West Freeway Alternative.

### **Severity of Remaining Harm after Mitigation to the Protected Activities, Attributes, or Features That Qualify Each Property for Section 4(f) Protection (23 CFR 774.3[c][ii])**

#### ***Historic Resources***

The historic houses used (not *de minimis*) by both alternatives would be completely removed.

For the D&RGW Garfield Branch Railroad, mitigation includes the reconstruction of the tracks and a bridge for the 7200 West Freeway Alternative. These tracks could continue to be used.

#### ***Publicly Owned Parks and Recreation Areas***

The 5800 West Freeway Alternative would use the Hunter High School and Hillside Elementary School athletic fields, which are considered Section 4(f) resources. The MVC team has met with the Granite School District, which is the

owner of these athletic fields, to discuss the 5800 West Freeway Alternative and its impacts to these fields.

As discussed in the section above titled Ability To Mitigate Adverse Impacts to Each Section 4(f) Property, after mitigation the Hunter High School athletic field would continue to function as it normally does.

The Hillside Elementary School athletic field would still be able to function. The 5800 West Freeway Alternative would require 1.4 acres or about 28% of the athletic field. This use would include the removal of one of the two informal baseball/softball diamonds. The soccer field and the other baseball/softball diamond would remain functional. Mitigation could include adding 0.11 acre of an unused detention basin to the athletic field.

### ***Conclusion***

For the historic houses, both alternatives would completely remove these resources. For each individual property, the severity of the remaining harm would be the same for both the 5800 West Freeway and 7200 West Freeway Alternatives. However, since the 5800 West Freeway uses a greater number of Section 4(f) properties, the severity of the harm to historic properties would be greater with the 5800 West Freeway Alternative.

For the parks and recreation areas, the 5800 West Freeway Alternative would use two Section 4(f) resources, whereas the 7200 West Freeway Alternative would use none. Therefore, the severity of the harm would be somewhat greater with the 5800 West Freeway Alternative. However, the recreation resources affected by the 5800 West Freeway Alternative would remain functional.

### **Significance of Each Section 4(f) Property (23 CFR 774.3[c][iii])**

#### ***Historic Resources***

The official with jurisdiction over the historic properties is the Utah State Historic Preservation Office (SHPO). The MVC team has met with the SHPO on numerous occasions throughout this project. FHWA and UDOT have prepared a Determination of Eligibility and Finding of Effect (DOE/FOE), which documented historic resources in the MVC study area. The DOE/FOE establishes the eligibility rating for each historic resource and the type of effect that each will receive from the alternatives. The SHPO has agreed to the DOE/FOE, which is found in Appendix 17B, Cultural Resources Correspondence.

In addition, consultation with the Certified Local Government of West Valley City and the Magna Township has resulted in no desire for the conservation of

the historic homes affected by either alternative. This is documented in Section 17.2.1.2, Consultation.

### ***Publicly Owned Parks and Recreation Areas***

The primary function of the Hunter High School and Hillside Elementary School athletic fields (Section 4(f) use for the 5800 West Freeway Alternative) is for educational purposes and the education system for these schools. The significance of these two Section 4(f) resources as a public park or recreation area (that is, a park or recreation area used by the general public) is secondary to their primary purpose.

### ***Conclusion***

Each individual historic property affected by the 5800 West Freeway and 7200 West Freeway Alternatives has similar significance. In general, while these historic properties are considered eligible for the National Register, they are examples of a common property type in this area.

The recreation resources at Hunter High School and Hillside Elementary School are significant to the schools, but their use as school athletic fields is not protected by Section 4(f). These fields are protected under Section 4(f) because of their availability to the public for use during after-school hours. The public use of these fields is a secondary use. The school system does not monitor after-hours use of the fields and does not maintain records of how often these fields are used by the general public during after-school hours.

### **Views of Officials with Jurisdiction over Each Section 4(f) Property (23 CFR 774.3[c][iv])**

#### ***Historic Resources***

The official with jurisdiction over the historic properties is the Utah SHPO. The MVC team has met with the SHPO on numerous occasions throughout this project. FHWA and UDOT have prepared a Determination of Eligibility and Finding of Effect (DOE/FOE), which documented historic resources in the MVC study area. The DOE/FOE establishes the eligibility rating for each historic resource and the type of effect that each will receive from the alternatives. The SHPO has agreed to the DOE/FOE, which is found in Appendix 17B.

In addition, consultation with the Certified Local Government of West Valley City and the Magna Township has resulted in no desire for the conservation of the historic homes used by either alternative. This is documented in Section 17.2.1.2, Consultation.

### *Publicly Owned Parks and Recreation Areas*

The official with jurisdiction over the Hunter Park High School and Hillside Elementary School athletic fields is the Granite School District. The school district considers the fields significant for school activities; however, their use for school activities is not protected by Section 4(f). The fields are protected under Section 4(f) because of their availability for public use during after-school hours. The school district does not regulate or monitor their after-hours use by the general public and has not expressed a view about the significance of these fields for after-hours use. There is no other public body with jurisdiction over the after-hours use of the fields.

### *Conclusion*

With regard to historic properties, the official with jurisdiction is the SHPO. The SHPO has concurred in the eligibility determinations and findings of effect. The SHPO has not raised any objection to the selection of the 5800 West Freeway Alternative. The SHPO has approved a Programmatic Agreement that establishes mitigation measures that must be implemented to resolve the adverse effects of the 5800 West Freeway Alternative on historic properties.

With regard to parks and recreation areas, the official with jurisdiction over the school athletic fields is the Granite School District. The school district seeks to preserve the fields for school use, which is not protected by Section 4(f). The school district does not regulate or monitor their use by the general public after school hours.

Overall, the views of the officials with jurisdiction over Section 4(f) properties indicate that the 5800 West Freeway Alternative is the alternative with greater impacts on Section 4(f) properties but also that the difference in impact is not necessarily great enough to outweigh other considerations in the choice between the 5800 West Freeway and 7200 West Freeway Alternatives.

### **Degree to Which Alternative Meets the Purpose and Need (23 CFR 774.3[c][v])**

#### *Transportation Performance and Congestion Relief*

The 5800 West Freeway Alternative better meets the transportation need as identified in Chapter 1, Purpose of and Need for Action. Extensive traffic modeling was conducted as part of this EIS process. This modeling indicated that more vehicles would use the 5800 West Freeway Alternative compared to the 7200 West Freeway Alternative. Travel on the east-west arterials would decrease

by 3%, while the north-south arterial travel would be the same with the 5800 West Freeway Alternative as with the 7200 West Freeway Alternative.

The traffic analysis showed that traffic volumes would be higher on the 5800 West freeway than on the 7200 West freeway. Generally, motorists would use the Mountain View Corridor to travel to downtown Salt Lake City and the surrounding areas. The 7200 West freeway is farther west than the 5800 West freeway; motorists are more likely to use a facility that is closer to their destination.

Therefore, the 7200 West Freeway Alternative would carry less traffic, result in more delay, and increase traffic along the east-west arterial roadway system in western Salt Lake County compared to the 5800 West Freeway Alternative.

### ***Conclusion***

As discussed above, the 5800 West Freeway Alternative meets the project purpose better than the 7200 West Freeway Alternative.

### **Magnitude of Adverse Impacts on Other Resources after Reasonable Mitigation (23 CFR 774.3[c][vi])**

This section discusses other environmental resources that would be affected by the Salt Lake County freeway alternatives. Considered in this section are wetlands, home and business relocations, environmental justice, community cohesion, land use plans and policies, and other environmental issues.

#### ***Wetlands***

Under the federal Clean Water Act and through the Section 404 permitting process, the U.S. Army Corps of Engineers (USACE) has been given responsibility and authority to regulate fill materials into waters of the U.S., including wetlands. Under Section 404 of the Clean Water Act, no discharge of dredged or fill material shall be permitted in waters of the U.S. if there is a less environmentally damaging practicable alternative to the proposed discharge. An alternative is practicable if it is available and capable of being implemented after taking into consideration cost, existing technology, and logistics in light of overall project purposes. For actions subject to NEPA, where USACE is the permitting agency or, as in this case, a cooperating agency, the analysis of alternatives required for NEPA documents must provide the information necessary for the evaluation of alternatives and selection of the least environmentally damaging practicable alternative (LEDPA).

To evaluate the expected impacts to wetlands, numerous meetings were held with USACE, the U.S. Fish and Wildlife Service, and the Utah Division of Wildlife

Resources. Through these meetings, a functional assessment methodology was developed to determine the wetland impacts of each alternative to help determine which alternative is the LEDPA. In addition to the functional assessment, the resource agencies wanted to focus on rare or irreplaceable wetlands in determining the LEDPA based on these wetlands' low frequency of occurrence and/or the inability to compensate for impacts to them through creating new wetlands, restoring existing wetlands, or enhancing existing wetlands. For Salt Lake County, playas and vegetated playas are of particular importance, given the difficulty of mitigating these types of waters of the U.S. Attempts to re-create the wetland hydrology and soil chemistry fundamental to these systems have been met with limited success. Therefore, the proposed alignments in Salt Lake County were assessed according to their impacts to playas. [Table 28.5-2](#) compares the impacts to wetlands based on the functional assessment and the impacts to playa wetlands.

**Table 28.5-2. Comparison of Wetland Impacts from the Salt Lake County Freeway Alternatives**

Alternative	Functional Units Lost (FCU)	Primary and Secondary Impacts to Playa Wetlands (acres)
5800 West Freeway	39	119
7200 West Freeway	50	194

FCU = functional capacity units, which is a measure for assessing impacts to the loss of the wetland function or quality

The 7200 West Freeway Alternative has greater overall impact to wetlands in both functional units lost and impacts to playa wetlands. The most important difference between the two alternatives is the impacts to the playa wetlands; the 7200 West Freeway Alternative would affect 75 more acres of those types of wetlands. USACE considers playa wetlands rare and irreplaceable because of the limited success in creating these types of wetlands and also the considerable loss of playa wetlands along the Wasatch Front from development and agricultural activities. Based on the above information, it is likely that the 5800 West Freeway Alternative would be selected as the least damaging alternative to the aquatic environment that meets the project's purpose. For more information about wetlands, see Section 15.5.3.3, 5800 West Freeway Alternative.

### ***Home and Business Relocations***

Both Salt Lake County alternatives would require the relocation of homes and businesses. [Table 28.5-3](#) below compares the number of relocations from both alternatives.

**Table 28.5-3. Comparison of Home and Business Relocations from the Salt Lake County Freeway Alternatives**

Relocation Type	Alternative	
	5800 West Freeway	7200 West Freeway
Home relocations	159	253
Business relocations	16	27
<b>Total relocations</b>	<b>175</b>	<b>280</b>

The 5800 West Freeway Alternative has 94 fewer home relocations and 11 fewer business relocations than the 7200 West Freeway Alternative for a total of 105 fewer relocations.<sup>10</sup> The primary difference in impacts between these two alternatives is due to the fact that the 5800 West Freeway Alternative runs adjacent to the Rocky Mountain Power utility corridor, which optimizes this area and minimizes the overall footprint of these two facilities.

The 7200 West Freeway Alternative would also isolate about 45 residential homes between 7200 West, 4100 South, and about 3700 South. This alternative would create an “island” of residential houses in West Valley City that would be isolated from other subdivisions and areas in West Valley City. For more information about relocations, see Chapter 6, Community Impacts.

### ***Environmental Justice***

One of the relocations under the 7200 West Freeway Alternative would be a Spanish Jehovah’s Witnesses church at 3164 South 7200 West. Many attempts were made to contact representatives of this church to discuss the expected impacts, but no one from the congregation responded. Removal of this church would result in an environmental justice impact as defined in Chapter 7, Environmental Justice.

### ***Community Cohesion***

The 7200 West Freeway Alternative would cause more disruption to community cohesion than would the 5800 West Freeway Alternative. The 5800 West Freeway Alternative would use as much of the utility corridor as possible by combining the footprints from the freeway and utility corridor to minimize impacts to the surrounding area. The 7200 West Freeway Alternative does not use the utility corridor and therefore would be more disruptive and have greater

<sup>10</sup> The number of relocations for the 7200 West Freeway Alternative increased since the completion of the Draft EIS. The increase is a result of the realignment of the 7200 West freeway to avoid sensitive areas within the ATK property. For more information, see Section 2.1.8.3, 5800 West Freeway and 7200 West Freeway Alternatives.

impacts to the surrounding communities. The existing and planned zoning in West Valley City along the utility corridor and the 5800 West Freeway Alternative is a mix of residential (low and high density), commercial, agricultural, and industrial. The 7200 West Freeway Alternative passes through areas that are mostly zoned for residential uses. For more information about community cohesion, see Chapter 6, Community Impacts.

### *Land-Use Plans and Policies*

An existing utility corridor runs the length of Salt Lake County. In the West Valley City area, this utility corridor acts as a partition within the city where no development or only limited development can occur. The 5800 West Freeway Alternative through West Valley City runs adjacent to the existing utility corridor right-of-way, an arrangement that optimizes the space between the two facilities to minimize the overall footprint. West Valley City has supported the 5800 West Freeway Alternative over the 7200 West Freeway Alternative. The West Valley City Council and Mayor prepared and signed a resolution on September 2, 2003, giving the City's support to the 5800 West Freeway Alternative (see Appendix 28G, West Valley City Resolution for the 5800 West Freeway Alternative). In addition, the West Valley City general plan map shows the location of the 5800 West freeway; the 7200 West freeway is not shown on this map.

### *Air Quality*

The expected impacts to air quality are analyzed in Chapter 12, Air Quality. As stated in Chapter 12, none of the MVC alternatives would result in any federal or state air quality standard being exceeded, and all of the MVC alternatives would be in compliance with the carbon monoxide (CO) and particulate matter (PM<sub>10</sub>) emission budgets in the State Implementation Plan. Both the 5800 West Freeway Alternative and the 7200 West Freeway Alternative would increase regional CO emissions in 2030 by about 4% and regional PM<sub>10</sub> emissions by less than 1% compared to the No-Action Alternative.

Chapter 12 also provides a comparison of the MSAT emissions of the action alternatives. As shown in [Table 12.4-8](#), Mobile-Source Air Toxics Emissions from the Salt Lake County Roadway Alternatives in 2030, there are small differences in MSAT emissions between the Salt Lake County action alternatives. The 5800 West Freeway Alternative would produce about 1% more MSAT emissions compared to the 7200 West Freeway Alternative. Overall MSAT emissions would be substantially lower between 2006 and 2030 for all alternatives.



### *Other Environmental Considerations*

The following environmental resources were compared to determine the overall harm of the Salt Lake County freeway alternatives:

- **Farmland.** The 7200 West Freeway Alternative would affect more farmland, including prime and unique farmland, than would the 5800 West Freeway Alternative. The 5800 West Freeway Alternative would affect 23 acres of prime and unique farmland, while the 7200 West Freeway Alternative would affect 30 acres of prime and unique farmland. For more information about farmland impacts, see Chapter 5, Farmlands.
- **Floodplains.** The 7200 West Freeway Alternative would affect more floodplains than would the 5800 West Freeway Alternative. The 5800 West Freeway Alternative would affect 23 acres of floodplains, while the 7200 West Freeway Alternative would affect 27 acres. For more information about floodplain impacts, see Chapter 16, Floodplains.

**Noise.** The 7200 West Freeway Alternative has greater noise impacts than the 5800 West Freeway Alternative (see Chapter 13, Noise). A noise impact is defined by the federal Noise-Abatement Criteria (NAC) and other state guidelines. The 5800 West Freeway Alternative would have 379 residential noise impacts, while the 7200 West Freeway Alternative would have 763 residential noise impacts.

[Table 28.5-4](#) below summarizes the environmental and other issues for both of the Salt Lake County freeway alternatives.

**Table 28.5-4. Comparison of Environmental Impacts from the Salt Lake County Freeway Alternatives**

Impact Category	Alternative	
	5800 West Freeway	7200 West Freeway
Wetland impacts		
Functional capacity units (FCU) lost (primary and secondary)	39 FCU	50 FCU
Impacts to playa wetlands (primary and secondary)	119 acres	194 acres
Transportation performance and congestion relief	This alternative performed better and removed more vehicles from the arterial roadway system.	This alternative, when compared to 5800 West Freeway Alternative, did not perform as well.
Home and business relocations		
Home	159	253
Business	16	27
Environmental justice impacts	None	Relocation of Spanish Jehovah's Witness church
Community cohesion impacts	This alternative uses the existing utility corridor and is shown on West Valley City maps. It has less impact to community cohesion than the 7200 West Freeway Alternative.	This alternative is more disruptive to the community than the 5800 West Freeway Alternative.
Land-use plans and policies	Better meets the land uses and zoning of West Valley City compared with 7200 West Freeway Alternative.	The 7200 West Freeway Alternative is not shown on the West Valley City general plan map where the 5800 West Freeway Alternative is shown.
Air quality	This alternative would not result in any federal or state air quality standards being exceeded.	This alternative would not result in any federal or state air quality standards being exceeded.
Farmland impacts (prime farmland)	23 acres of prime farmland	30 acres of prime farmland
Floodplain impacts	23 acres	27 acres
Noise impacts	379 residences	763 residences

### *Conclusion*

For the reasons discussed above, the 7200 West Freeway Alternative has greater impacts on other environmental resources than the 5800 West Freeway Alternative. In particular, the 7200 West Freeway Alternative has much greater total impacts on playa wetlands, which are considered irreplaceable. The difference in wetland impacts is a key factor that favors selection of 5800 West Freeway Alternative in the comparison of overall harm. In addition to the differences in wetland impacts, the 5800 West Freeway Alternative, when compared to the 7200 West Freeway Alternative, would relieve congestion of the

surrounding roadway network; would have 105 fewer residential and business relocations; would use an existing utility corridor to help minimize impacts to the community; would better meet the local, regional, and statewide planning efforts; would have fewer impacts on prime and unique farmland; would have fewer impacts on floodplains; and would have half the noise impacts. Therefore, the 5800 West Freeway Alternative clearly has the least overall harm compared to the 7200 West Freeway Alternative.

### **Substantial Differences in Costs among Alternatives (23 CFR 774.3[c][vii])**

There is no substantial difference in costs between the 5800 West Freeway Alternative and the 7200 West Freeway Alternative. Chapter 2, Alternatives, includes a complete discussion of costs for both the 5800 West Freeway and 7200 West Freeway Alternatives. [Table 2.2-1](#), Preliminary MVC Cost Estimate (in 2007 Dollars) – Salt Lake County Alternatives, provides a total construction cost for both of these alternatives.

#### **28.5.6.3 Conclusion**

This section has considered the seven factors that FHWA’s Section 4(f) regulations require to be considered when determining which alternative causes the “least overall harm in light of the statute’s preservation purposes.” See 23 CFR 774.3(c)(1). Based on those seven factors, the 5800 West Freeway Alternative has somewhat greater impacts to Section 4(f) properties after taking into account the ability to mitigate impacts, the severity of remaining harm, the significance of the resources, and the views of the officials with jurisdiction. But while the Section 4(f) impacts would be somewhat less with the 7200 West Freeway Alternative, that alternative would cause much greater harm to irreplaceable playa wetlands. In addition, the 7200 West Freeway Alternative would carry less traffic, would provide less congestion relief, would cause more relocations and community disruption, would be less consistent with local land-use plans, and would have a greater environmental justice impact. Based on all of these considerations, the 5800 West Freeway Alternative causes the least overall harm in light of the statute’s preservation purpose (see 23 CFR 774.3[c][1]). Therefore, the 5800 West Freeway Alternative has been selected.

## 28.6 Measures To Minimize Harm

Although there are no prudent and feasible alternatives that would avoid all Section 4(f) resources, measures to avoid or minimize impacts to individual resources were considered and incorporated into the MVC project. This reduced the overall number of adverse impacts identified in previous sections of this chapter. The following sections summarize the measures that were considered to minimize harm to Section 4(f) resources that would be used by the project. These measures have been developed in accordance with the definition of “all possible planning” in Section 774.17 of the FHWA Section 4(f) regulations.

According to FHWA Section 4(f) regulations, a *de minimis* impact determination under Section 774.3(b) “subsumes the requirement for all possible planning to minimize harm by reducing the impacts on the Section 4(f) property to a *de minimis* level.” Therefore, the requirement for minimization of harm has been met with regard to all properties for which findings of *de minimis* impact have been made. The following discussion focuses on properties that would be used by the project, where the use was *not* found to be *de minimis*. All of the non-*de minimis* uses were located in Salt Lake County.

### 28.6.1 Measures To Minimize Harm to Historic Resources

The project would result in the non-*de minimis* use of 12 individual historic properties in Salt Lake County. For a description of these properties and the nature of the proposed use, see Section 28.4.1, Use of Section 4(f) Resources by the Salt Lake County Alternatives.

FHWA and UDOT have entered into a Section 106 Programmatic Agreement with the Utah SHPO. The Programmatic Agreement establishes standard treatments for mitigating adverse effects on historic properties and a process for further consultation during the implementation of the project. For example, it requires documentation of adversely affected historic architectural resources through the completion of an Intensive-Level Survey. The Programmatic Agreement is included in Appendix 17B, Cultural Resources Correspondence. An Intensive-Level Survey will be completed for the historic properties adversely affected. The Intensive-Level Survey includes the following elements:

- Photographs that show such attributes as the interior, exterior, and streetscape. This will include an adequate number of professional-quality, black-and-white photographs.
- Research material including a copy and a negative of the legal historic tax card (if available).
- All materials will be placed on file with the Division of State History, Historic Preservation Office.

Compliance with the terms and conditions of the Section 106 Programmatic Agreement will fulfill the requirement to minimize harm to historic properties that will be used by the project. See 23 CFR 774.17, definition of “all possible planning” (which states that, “[w]ith regard to historic sites, the measures normally serve to preserve the historic activities, features, or attributes of the site as agreed by the Administration [FHWA] and the official(s) with jurisdiction over the Section 4(f) resource in accordance with the consultation process under 36 CFR Part 800”).

## 28.6.2 Measures To Minimize Harm to Parks and Recreation Areas

The project would result in the non-*de minimis* use of two publicly owned parks and recreation areas: the Hunter High School athletic fields and the Hillside Elementary School athletic fields. Both of these properties are located in Salt Lake County. It is important to note that these athletic fields are protected under Section 4(f) solely because of their availability for use by the general public during after-school hours. Their use as recreation facilities for school activities is not protected under Section 4(f), but is considered as part of the NEPA process along with other community impacts.

With regard to parks and recreation areas, FHWA regulations state that the measures to minimize harm “may include (but are not limited to): design modifications or design goals; replacement of land or facilities of comparable value and function; or monetary compensation to enhance the remaining property or to mitigate the adverse impacts of the project in other ways.” See 23 CFR 774.17 (definition of “all possible planning”). Therefore, a range of measures can be adopted to minimize harm to parkland; purchasing replacement parkland is one option, but other options also can be used to minimize harm.

To determine appropriate measures to minimize harm, the Mountain View Corridor team met with the officials with jurisdiction over Hillside Elementary School and Hunter High School and discussed a range of options for minimizing harm. This section discusses the measures that have been incorporated into the project to minimize harm to these recreation resources.

In addition, the Mountain View Corridor team also has minimized harm to the park and recreation resources for which findings of *de minimis* impact have been made. As noted above, the findings of *de minimis* impact subsume the obligation to minimize harm. Therefore, no further analysis of minimization of harm was required.

### 28.6.2.1 Hunter High School Athletic Field

The 5800 West Freeway Alternative is the only alternative that would affect the Hunter High School athletic fields. This alternative would use about 0.4 acre as shown in [Table 28.4-8](#) above, Description of Uses of Public Parks and Recreation Areas from the Salt Lake County Freeway Alternatives. In discussion with the officials at Granite School District, the use would not alter the functionality of either the softball diamond or the soccer field. A retaining wall would be used to minimize the use at this location.

The soccer field would be realigned in a north-south direction if the Mountain View Corridor is constructed. In addition, other measures to minimize harm would include restoring the soccer field and its amenities (sprinkler system, bleachers, grass area, and goal posts). As part of the construction for the 5800 West Freeway Alternative, this athletic field would be restored to function as it did before construction. The measures listed above will ensure that the impacts are minimized.

### 28.6.2.2 Hillside Elementary School Athletic Field

The 5800 West Freeway Alternative is the only alternative that would affect the Hillside Elementary School athletic fields. This alternative would use about 1.4 acres of these athletic fields (see [Table 28.4-8](#) above, Description of Uses of Public Parks and Recreation Areas from the Salt Lake County Freeway Alternatives). A retaining wall would be used to minimize the use at this location. Possible mitigation includes adding about 0.11 acre of an unused stormwater detention pond located directly northeast of the athletic field. FHWA and UDOT will continue to coordinate with school officials and the Granite School District regarding the impacts and mitigation.

In addition, FHWA and UDOT will provide monetary compensation to enhance the remaining property at this athletic field. Other measures that could be implemented, depending on future coordination with Granite School District, include replacement property near or adjacent to the school. Even though this athletic field would be smaller than it was before the construction of 5800 West Freeway Alternative, UDOT and FHWA are committed to enhance the remaining athletic area for the benefit of the school and those who use the area after school hours.

## 28.7 Coordination

### 28.7.1 Coordination Efforts for Historic Resources

The following is a summary from Chapter 17, Historic, Archaeological, and Paleontological Resources.

As part of the effort to identify Section 4(f) resources in the impact analysis area, Section 106 consultation was carried out among UDOT, UTA, FHWA, FTA, and several other agencies and individuals. Among those agencies consulted were the Utah SHPO, the Utah Geological Survey, the Bureau of Land Management (Salt Lake Field Office), and the Utah National Guard at Camp Williams.

In addition to the agencies, consultation was undertaken with several other entities that included certified local governments (CLG), historical societies and organizations, and mayors or town councils where no CLG or historical society exists. The following groups were contacted by a written letter:

- American Fork CLG, Mrs. Juel Belmont
- Bluffdale CLG, Mr. Denny Neilson and Mrs. Gloria Neilson
- Herriman, Mayor J. Lynn Crane
- Lehi CLG, Mr. John Rockwell
- Magna Township, Town Council
- Riverton Historical Society, Mrs. Karen Bashore
- Salt Lake City CLG, Ms. Elizabeth Giraud
- Salt Lake County CLG, Mr. Clair Hardman
- South Jordan History Committee, Mr. Joey Clegg
- Utah County CLG, Mrs. Donna Breckenridge
- Utah Heritage Foundation, Mr. Kirk Huffaker
- West Jordan, Mayor Bryan Holladay
- West Valley City, Mayor Dennis Nordfelt

The following six Native American tribes were also consulted as part of the Section 106 process because they might have ancestral interests in the Mountain View Corridor study area:

- Confederated Tribes of Goshute Reservation
- Northwestern Band of Shoshone Nation
- Paiute Tribe of Utah
- Shoshone-Bannock Tribes
- Skull Valley Band of Goshute Indians
- Uintah and Ouray Ute Indian Tribe

Consultation with the SHPO, the Utah Geological Survey, mayors, and tribes focused on soliciting information about the known or potential presence of both historic/archaeological and paleontological resources in the areas that could be directly or indirectly affected by the proposed alternatives. Consultation between UDOT and FHWA and the Utah SHPO focused on defining the appropriate Area of Potential Effects (APE) and on methods for identifying resources that would be appropriate for this EIS.

None of the agencies, mayors, CLG representatives, or tribes identified any specific cultural or paleontological resources of concern in the impact analysis area. Several of the tribes requested copies of the technical reports produced for this EIS and have asked to remain informed of the project's progress and any discoveries of prehistoric resources or human remains during construction.

In addition, several individuals and nonpolitical, community-based organizations were contacted for information about resources in the impact analysis area. These efforts were intended to help identify resources that are important to individual communities. These individuals and organizations included the newly created Magna Historical Society as well as city planners and city engineers with both Magna Township and West Valley City (which does not have a formal historical society). None of the individuals and organizations contacted identified any important historic sites or potential conflicts.

## 28.7.2 Coordination Efforts for Parks and Recreation Areas

UDOT and FHWA have been coordinating with the appropriate jurisdictional agencies regarding parks and recreation areas in the MVC study area.

Coordination has included meetings with the following agencies:

- Utah Division of Wildlife Resources (Lee Kay Center for Hunter Education)
- West Valley City (Centennial Park, West Ridge Golf Course, and Hunter Park)
- Salt Lake County Parks and Recreation (Hunter Park, Western Springs Park, planned section of the Jordan River Parkway in Bluffdale)
- Granite School District (Hillside Elementary School and Hunter High School athletic fields)
- Jordan School District
- Alpine School District
- Riverton City (Western Springs Park)
- Lehi City (Pointe Meadow Park and Northlake Park)
- Utah County (Jordan River Parkway Trail)
- Utah Division of Parks and Recreation (Section 6(f) properties)

Coordination efforts are ongoing and will continue through the Final EIS process.



## 28.8 Final Section 4(f) Statement

Based on the above analysis, FHWA makes the following determination with regard to the Preferred Alternatives for the roadway components of the MVC.

### 28.8.1 5800 West Freeway Alternative (Salt Lake County Preferred Roadway Alternative)

This alternative would have *de minimis* impacts on the following Section 4(f) resources:

- Historic Resources
  - West Branch Brighton Canal Extension
  - Salt Lake Garfield and Western Railroad
  - Western Pacific Railroad
  - Union Pacific Railroad
  - Riter Canal
  - Utah and Salt Lake Canal
  - D&RGW Railroad
  - Brighton and Garfield Railroad
- Public Parks and Recreation Areas
  - Lee Kay Center for Hunter Education
  - Hunter Park
  - West Ridge Golf Course

In addition, there is no feasible and prudent alternative that avoids the use of land from the following Section 4(f) resources:

- Historic Resources
  - 5769 West 3500 South
  - 5765 West 3500 South
  - 5755 West 3500 South
  - 5742 West 3500 South
  - 5741 West 3500 South
  - 5724 West 3500 South
  - 5712 West 3500 South
  - 3525 South 5750 West
  - 3530 South 5750 West
  - 3547 South 5750 West
  - 3556 South 5750 West
  - 3590 South 5750 West

▲ ▲

- Parks and Recreation Areas
  - Hunter High School athletic fields
  - Hillside Elementary School athletic fields

These resources are located in West Valley City (Salt Lake County), Utah. FHWA has determined that 5800 West Freeway Alternative includes all possible planning to minimize harm to the Section 4(f) resources listed above.

### **28.8.2 2100 North Freeway Alternative (Utah County Preferred Roadway Alternative)**

This alternative would have *de minimis* impacts on the following Section 4(f) resources:

- Historic Resources
  - Provo Reservoir Canal/Murdock Ditch
  - Salt Lake and Western Railroad
  - Utah Lake Distributing Canal
  - Gardner Canal
  - Denver and Rio Grande Railroad
  - Union Pacific Railroad Provo Line
  - 1025 W. State Street in Lehi
  - 1020 W. State Street in Lehi
  - 1060 W. State Street in Lehi
  - 959 West 2100 North in Lehi
  - 951 West 2100 North in Lehi
- Parks and Recreation Areas
  - Jordan River Parkway Trail

The 2100 North Freeway Alternative would not require the use of any Section 4(f) resources other than those for which *de minimis* impact findings have been made.

▼ ▼

## 28.9 References

[FHWA] Federal Highway Administration

- 2005a Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources. December 13.
- 2005b Section 4(f) Policy Paper. March 1.

HDR Engineering, Inc.

- 2007 Alternatives Screening Report Addendum. October.

[LDS Church] Church of Jesus Christ of Latter-day Saints

- 2006 Welfare Services Fact Sheet – 2006. [www.providentliving.org/welfare/pdf/2006WelfareFactSheet.pdf](http://www.providentliving.org/welfare/pdf/2006WelfareFactSheet.pdf).

Parsons Brinckerhoff

- 2004 Alternatives Screening Report. July.
- 2005 SR 111 Elimination Report. Technical Report 06-4. July 14.

State of Utah

- 2008 Manual of Accommodation of Utility Facilities and the Control and Protection of State Highway Rights-of-Way. Utah Administrative Code, Rule R930-6.

Transportation Research Board

- 2000 Highway Capacity Manual.

[UDOT] Utah Department of Transportation

- 2004 Selective Reconnaissance Survey, West Valley City and Magna, Salt Lake County, Utah.
- 2005a Environmental Study, Redwood Road 10400 South to Bangerter Highway, SP-0068(24)43. Approved by UDOT in March 2005.
- 2005b Environmental Study, Redwood Road, 2100 South to 3500 South. STP-0068(15)55. Approved by UDOT and FHWA in March 2005.
- 2007 Environmental Assessment, SR 68, Bangerter Highway through Saratoga Springs. HPP-TI-STP-0068(42)26. Decision document pending.

▲ ▲

*This page is intentionally blank.*

▼ ▼